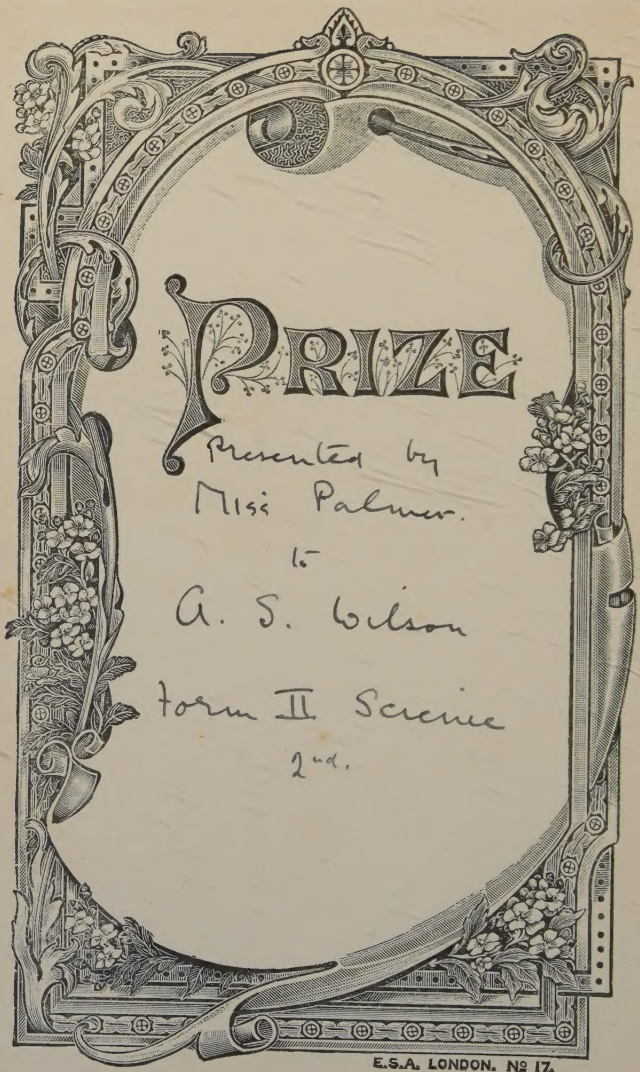
NATURE STUDIES OF A BOY NATURALIST

C. T. ASTLEY MABERLY



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NATURE STUDIES OF A BOY NATURALIST

WILD NATURE AND
COUNTRY LIFE
By A WOODMAN
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NATURE STUDIES
OF A BOY NATURALIST

By C. T. ASTLEY MABERLY

With a Foreword by EDWARD STEP, F.L.S.

ILLUSTRATED WITH PEN-AND-INK
SKETCHES BY THE AUTHOR

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TO

MY PARENTS

AND TO

DICK, HELEN, AND NANCY

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FOREWORD

EVERY middle-aged naturalist knows that when he is on the hunt for some rare and elusive creature, whether animal or plant, he can have no better colleague than a sharp-eyed and observant youngster to whom he has imparted a description of the thing sought and of its customary haunts. Many a time in former years I have been beholden to my own young people in this way; and among collectors of insects it is notorious that the most desirable things often get into the nets of boys. Only a few months ago some Surrey school-children discovered the rare Lizard Orchis in a locality where it had never been known previously to exist.

The "Boy Naturalist" to whom we are indebted for this volume of vivid glimpses of Nature is no mere impressionist, but in spite of his youth a well-informed observer, whose previous study has taught him where to look for interesting things. He takes us to the Downland, the woods, the saltings or the estuary flats, with a knowledge of the creatures that haunt these severally, and so is able to distinguish between the species of gulls or waders or hawks or finches, and to mark the characteristic behaviour of each. There are hosts of Nature-observers whose

minds are stored with interesting facts that have been gathered in the same way; but except in conversation with co-workers the facts do not emerge, for lack of the literary skill to record them. In the present case, the confession of youthfulness may prepare readers to expect a certain crudity of expression; but they will not find it in these Studies. Mr. Maberley is able so to set down his observations in a clear and straightforward style that readers may accompany him, as it were, and see what he has seen. Not only so, but his thumb-nail sketches, here reproduced, very cleverly hit off some pose or turn characteristic of the creature he is watching; and slight as these may be, they are quite sufficient to enable us to visualize the situation.

I feel sure that many of the very numerous Nature-lovers who delight in watching the free birds and beasts in their proper environment will be grateful to the author for the pen and pencil delineations in this modest volume, and will look for a further instalment of his Nature-studies.

EDWARD STEP.

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NATURE STUDIES OF A BOY NATURALIST

CHAPTER I

AT THE HAUNT OF THE HOBBY

IMAGINE a vast undulating expanse of glorious purple heather, that catches wirily around your legs; dotted here and there with prickly clumps of fragrant golden furze, whose clustered pods snap in the sun's heat with tiny reports like pistol-shots. Straggling in and out of this heathery expanse, the tall pine trees grow in sparse groups, with here and there the graceful veiled forms of silver birches, until they gradually melt into the dark background of woodlands.

As I trudged wearily over the uneven, springy carpet of heather, my legs being unmercifully pricked and stabbed by the young whins, I was followed doggedly by a pair of inquisitive stonechats, who ceaselessly flitted from bush to bush with quick,

jerky flight, and perpetually scolded me in the metallic " chat-chat-chat " of this most attractive little dweller of the waste.

Such proved to be the haunt of one of Nature's most beautiful and interesting children—the handsome and rare hobby falcon (*Falco subbutes*).

As I trudged on thus, delighting in the glorious summer weather and the beauty of the scene around, a quick ringing alarm note fell suddenly on the ear. At first it sounded rather like the frightened cry of a pheasant chick, left behind by its family, and calling out in the sudden fear of finding itself alone. I followed the sound, that curiously enough seemed to come from the ground about two yards in front of me, where the undergrowth, now mingled with many birch saplings, was too dense for me to see anything. But as fast as I pursued the sound, it was always just the same way ahead of me, and I was quite puzzled as to what could be the origin of it.

At last, by chance, I glanced at the sky overhead, and there the problem was solved, for a couple of long-winged hawks were circling and dashing round and round me, with anxious and frenzied flight. " Kestrels !" I thought at the first glance, but somehow the figures of the birds were more stoutly built than that of the kestrel, and their tails were noticeably shorter. So far they had been silhouetted against the sky, but now, as I watched through my field-glasses, one bird swooped beautifully below the level of the tree-tops, thus setting off his rich grey back, brown-streaked white breast, and gorgeous orange flanks. Added to this was the fierce little black highwayman's mask over the eyes, and there

could be no doubt but that before me were two splendid specimens of the rare hobby falcon!

It is difficult to express in words that thrill of delight that one receives when one observes for the first time a rare bird in a state of Nature at close quarters. But all lovers of birds will quite understand my pleasure at this tremendous stroke of good-luck. Before the afternoon and evening were over,

I had learnt some interesting things about this beautiful little hawk.

On account of the pair's obvious anxiety at my appearance, I naturally expected to find a nest, or at least young birds, in the neighbourhood, but though I searched energetically and diligently, I completely failed to discover anything of the sort. The first alarm having subsided, these hobbies seemed to forget my existence completely. They flew delightfully round and round, now gliding on motionless

wings, now shooting like arrows over the tops of the trees. I do not think that I have ever seen more beautiful wing-performances than were given by these birds. They circled, glided, swooped, twisted, dived, and spiralled up, down, and around in a perfect ecstasy of joy in life. They flew at a lightning speed, too, that put the dashing sparrow-hawk to shame. Their very presence did one good, and they were so obviously enjoying life that their happiness became infectious, and sent thrills of new life through the observer. Their flight was accompanied by the cheery ringing " Kee-kee-kee," and as

they flew, the radiant sun shone on their slate-grey backs and orange flanks.

The agile twists and turns of the reckless flight and the beautiful curves of the wings are beyond my power to describe in a way that would do justice to them. Suffice to say that I was held bound in a spell until my eyes ached from the strain of keeping in time with them !

After a while, one of the hobbies perched on top of a pine-tree, and I was able to procure a better view of his appearance. When perched sedately thus, the hobby loses a good deal of his fascinating appearance and becomes a very ordinary-looking

hawk. His conspicuous flank feathers are more often than not hidden by the foliage, and thus only his more sombre upper parts are visible. With the exception of the streaked breast, he looks much like a miniature peregrine falcon. But he has a distinctly meeker appearance. Even so, however, he has a decidedly intelligent, even "knowing," manner in the way that he looks at you with his head on one side. The hobby has the beautiful large dark brown eyes of the true falcons.

It was not long before the hobby perched quietly in the pine foliage, and he evidently considered that

whatever I was, I was certainly not worth knowing, and accordingly he took an interest in a very much more alluring subject—that of his mate, still swooping and gliding round the tree-tops. Presently he joined her once more, and away they went, as happy and beautiful as before.

I was quite astonished at the remarkable "tameness" of this comparatively rare bird. He treated human beings with marked disdain, waiting till you were practically under the tree in which he perched before spreading his wings and carelessly

curvetting into the next one, where he was promptly lost in meditation, as before.

As the two hawks flew around together, they periodically gambolled with one another, rising heavenwards in spirals, and then gliding down together, playfully buffeting one another as they came.

With regard to diet, the hobby is dainty, as befits his appearance. He is, perhaps, one of the least carnivorous of the Falconidæ, subsisting chiefly on beetles, moths, dragon-flies, and other insects, and varying these with lizards, frogs, toads, and small

birds. Thus there is every reason to protect so picturesque and delightful a bird, and absolutely no excuse for shooting him whenever he honours us with his too little-known presence—least of all, for the scandalous purpose of stuffing his battered body and keeping it as a "trophy," set up in some stiff, unnatural surroundings, in a glass case! This is usually the reception meted out to our rarer and more beautiful birds.

Such was the brief glimpse that I received of the hobby on a hot day towards the end of August, 1922. Hobbies are summer migrants, and when I arrived at the spot a day or two later for more observations,

both birds had completely vanished, and I think that they must have departed for their winter quarters, unless they had suddenly met with the fate mentioned above.

In case they should return to the same locality at some future nesting season, I think it advisable and pardonable not to mention the name of this fortunate spot, and more especially so since it is only about a mile and a half's distance from a country town.

CHAPTER II

THE RED DEER IN AUTUMN

MY reason for writing about the red deer in autumn is because I think that during this season quite the most interesting chapter of the deer's life is unfolded. In short, it is the mating season, and the time when stag meets stag in fierce combat.

I had better state at once that I have never yet had the good fortune to see the wild red deer at home on the moors of Devonshire or Ireland and the high-tops of Scotland, and therefore all my observations are based on the study of park deer. Nevertheless, these are all first-hand, and may be considered as, in some measure, characteristic of the species.

The red deer is by far the handsomest and noblest of our existing native fauna. During the mating season, which usually commences during the latter part of September and extends throughout October, the stag is, of course, in the prime of condition. His glossy coat of rich reddish-brown gleams handsomely in the sun, and his neck swells to a large size and

becomes clothed with a thick wiry mane of dark brown. Below his flanks runs a clear line of demarcation where the reddish coat fades into a greyish colour, which colour is shared by the face and legs. On the rump is a broad patch of a yellowish colour, fading into white around the yellowish-buff tail.

The magnificent antlers are, of course, rubbed clean of the " velvet," and appear to be sharp weapons of war, though in reality they are seldom or never used in fighting.

A restless and excited gleam in the eye betrays the agitated state of his nerves during this season. The most striking feature of the stag now, though, is the development of his vocal powers into an immense throaty roar—a challenge that is more like the savage roar of some carnivorous beast than that of the gentle and timid deer. When particularly excited, the sonorous roar is followed by two or three coughing grunts—quite astonishing in their ferocity. At this season, indeed, the idea of the timid gentle deer must be quite forgotten, for the stag is one of the most uncontrolled and dangerous of animal lovers. His nerves are strung to the highest degree of tension, and he seems to regard every living thing as a rival, and accordingly is capable and liable to attack anyone who approaches too near.

Thus it is well to use a little caution when desirous of watching his behaviour at this season, and, as I will try to show, it is worth while taking risks to watch the deer.

The primary object, of course, of the stag is to get possession of as many hinds as possible, and with the least amount of trouble. He doesn't go out of his way to fight, and if he can gain wives by stealing

or any other form of trickery, he is more than willing to do so. Although the majority of stags will secure hinds at the commencement of the season, by the end they will have dwindled down to a few of the best and strongest beasts, each with a huge gathering of hinds won in honest battle or by low cunning. Thus Nature's object is clearly shown to be the insurance of a healthy stock, propagated only by the very best specimens. After a few weeks of this perpetual

anxiety and fighting, the stags are visibly seen to be suffering from the nervous strain, and their well-conditioned appearance gives way to gaunt, thin bodies, with ragged and mud-stained coats. A stag's face then is alarming in its fierce and restless expression, and the eyes of many gleam with an almost insane light. But it is singularly interesting to lie upon some sloping bank and watch events on the opposite slope through a pair of good field-glasses. During the morning and earlier part of the afternoon

the stags seem to spend most of their time lying down, and making a feeble attempt to doze, each surrounded by his little harem. But their restlessness is apparent from the fact that every ten minutes or so—sometimes less and sometimes more—they lift their heavy heads to send a savage challenge rolling down the hillside.

The hinds seem to take no great interest in these proceedings, but quietly crop the grass, or else lie down and chew the cud. The stag is very jealous of all their movements, though, and keeps them well

herded up into as small a space as possible. Any hind that strays off from the rest is at once rounded up at the point of his antlers.

But interest is awakened when suddenly the lazy challenge is answered at a close distance by another stag. The hinds prick up their ears and begin to listen intently, though, at first, the stag assumes an attitude of haughty indifference, turning his head in the opposite direction, and occasionally deigning to reply to the challenger. Soon the rival stag makes his appearance, and begins a cautious approach,

stopping many times to roar defiance at the owner of the hinds. When he approaches too close, the other stag begins to get genuinely alarmed, and jumps up, roaring furiously, ploughing up the turf with his antlers, and sending little clods up into the air; pawing and stamping the ground, meanwhile, with his feet. He then walks proudly out to meet the intruder, his fine head thrown back, and his breath coming in spurts from his dilated nostrils. Sometimes the intruder's courage melts at this point, and he beats a hasty and undignified retreat, chased for a little way by the furious owner of the hinds. But if the invading stag has decided to fight, he stands pawing up the ground and belling in the same way as the other. Then both stags run at one another with angry coughing grunts, and their heads meet with a crash of antlers that can be heard from a long distance. Then begins a kind of pushing match between the rivals, in which each strives to drive the other back and back until his strength and courage give way, and he turns and flees, closely pursued by the victor.

It is interesting to note that the antlers never seem to be used actually for the purpose of a thrust. The deer fight by butting one another with their heads, and the antlers are so manœuvred that they enable the head to be brought into close contact with the head of the opposing beast.

Occasionally the antlers may become locked, and some hours of desperate struggling may ensue ere they become separated again. Several instances are on record, of course, where the poor beasts have had their horns so securely locked that they have been unable to free themselves, and death from starvation

has inevitably occurred. I am told, also, that two deer in this desperate plight wandered, during their struggles, into the lake at Arundel Park, and were eventually found drowned there.

During this season stags will roll themselves in the sticky black mud and plough it up with their antlers until their coats become quite stained with it, which serves to make their appearance more wild and intrepid than ever. When a big stag approaches

a smaller one in possession of hinds, the smaller stag often runs away without offering battle at all.

I once was the amused spectator of an instance of this. It serves incidentally to show the cunning employed by more experienced beasts in gaining hinds with the minimum amount of trouble.

I was sitting on a sloping hillside in Arundel Park and on the opposite slope were two stags with hinds. The larger stag, who was certainly a very fine specimen, was reclining with his family of six hinds on the top of the slope. Down by the path, between the two slopes, the smaller stag lay with three hinds, who seemed to be rather old, and evidently not in

great demand. Presently two men came along the path, and the stag at the bottom rounded up his meagre harem in preparation for driving them up the bank to a safer spot. All went well, the hinds leading the way in single file, until they caught sight of the other group on the top. Thereupon the hinds hastened their steps, evidently with the purpose of having a little gossip with the others. The latter, on their part, began to do likewise. I quite expected the big stag to drive them back at once, but to my surprise he merely rose lazily to his feet and followed quietly behind. Then I realized the cunning plan that he had in mind, for he allowed the hinds of both parties to mingle, and then he calmly gave the smaller stag " notice to quit " ! I quite expected the latter to put up some sort of a fight, but he merely looked rather dazed by the unexpected turn of affairs. Not satisfied with merely taking possession of the other's hinds, the big stag charged furiously after him, and thus drove him right away. A little stout black Japanese deer had attached himself to the smaller stag's party, and he now followed his fallen friend in a very faithful manner.

Watching a stag in possession of a large herd of hinds is quite as amusing as it is interesting. Some hinds have an annoying habit of trying to wander away from the remainder, and these always cause the stag any amount of trouble and anxiety. It was once my fortune to witness the behaviour of a hind of this sort. She belonged to a fine stag who possessed seventeen other hinds. With such a large family, of course, the antlered monarch had practically no time for rest at all, and he was even too nervous to feed. No sooner had he driven one straying hind

back into the harem ere another attracted his attention, and away he went after her. But the hind who is the subject of this little story was quite the most wilful of the whole lot. It was quite evident that she was determined to escape from this temporary captivity, and she gave the poor stag hardly any rest at all.

There was a path dividing the spot where I was and the ground where the stag had "encamped," and it seemed to be the hind's object to cross this

path. She evidently thought that the stag wouldn't follow her if she remained near a human being, though, for my part, I was not so sure of that! The hind would wait until the stag was looking in another direction, or indulging in a confidential chat with a favourite, when she would commence to edge towards this path. She did this in a thoroughly deceitful manner, pretending to be completely occupied in nibbling the grass. But it was seldom that she had succeeded in straying far before the watchful and

ever alert stag caught sight of her, and immediately set off to drive her back. At first he would begin to walk slowly after her, but as soon as the hind realized that the " game was up," she would make a dash for the path, and then the stag would break into a trot also, his neck stretched out in front of him in what can only be described as a " wooing " manner. Failing to produce any impression on the callous one in this way, he then ran round daintily in front of her, his head still gazing contemptuously before him, and, without deigning to give her a single glance, would rush round, broadside on, and thus " sheer " her off. The hind still tried to dodge him, and then he resorted to sterner methods, and, cantering after her, he used forcibly to drive her back at the points of his antlers. But his whole behaviour was so dignified and courteous that it filled me with admiration and sympathy for him.

But at last, after many unsuccessful attempts, the hind managed to outrun the stag, and she cantered across the path until she was only a few yards away from me. A carter had stopped his horse to watch the stag, who was now running furiously up and down his side of the path, and belling as he did so. The hind deliberately ran up to the cart and fed quietly within a few feet of the man. As soon as the latter moved on with his cart the hind trotted over to where I was sitting, thus plainly defying the stag to dare to come and fetch her ! I felt anything but pleased at her company, as the stag was now in a furious rage, and the way in which he charged frantically up and down, roaring fierce defiance to me, and uttering ferocious grunts, made me feel very uncomfortable ! Fortunately, however,

he either didn't feel bold enough to come and fetch her, or else he didn't deem the hind worth while fetching, for he presently turned sulkily back again and seemed to forget all about her. He then devoted himself to furiously driving any other would-be offenders back again. Presently I heard a beautiful, shrill, and bleating cry, and a young hind, evidently a yearling, made a determined attempt to cross the path after the other. At the sound of its cry, the hind who was near me pricked up her ears and seemed

very much interested, and doubtless she was the mother of the yearling.

The stag did his very best to drive the impetuous little thing back again and again, but eventually she outwitted him, and soon joined her mother.

The stags seemed to wake up from their hopeless efforts at dozing at about four o'clock in the afternoon. Then the silence of the Park, broken during the day by occasional sleepy roars, would resound with lion-like noises on every side. It was most imposing to go and sit on the top of some sloping hill, overlooking the opposite miniature hills and valleys, and listen to the reverberating echoes as they were tossed from side to side.

As the evening advanced the noise became greater, until one could almost imagine the effect of being out in some desert spot and surrounded by prowling carnivores. Very often I would arrive at some spot where, on the hillside opposite, there would be a stag with his collection of huddled hinds, and, catching sight of me, he would throw back his head, his long

shaggy mane stirring in the breeze, and, opening his mouth wide, would send roar after roar in lofty defiance to me. Sometimes these challenges would take on an impatient air, as if the stag was defying his supposed rival to hurry up and fight, and on receiving no response on my part, he would turn his head away with a disgusted grunt. When a rival did turn up he, more often than not, seemed in no very great hurry

for the duel, but used to wander about in the neighbourhood pretending to feed, and occasionally roaring an answer to the stag with the hinds. Sometimes he merely lay down (at a respectful distance, of course), and succeeded in nearly driving the other to distraction. The whole bearing of the rival stag was usually one of insolent contempt. As the season advances the weaker and smaller stags gradually lose possession of their hinds, and thus the fewer able-bodied beasts that secure them end by possessing some thirty or forty, or even more, and their work in retaining these huge families becomes increasingly difficult. It is then that some of the most amusing and interesting incidents take place. It seems to me that very often bands of these unsuccessful stags congregate together and make a united onslaught on a big monarch in the endeavour to capture as many of his harem as possible! I witnessed an episode of this sort to the fullest advantage quite lately. It occurred whilst I had been spending a lot of time amongst the deer with the purpose of observing as much as I could of their behaviour during the fighting, or "rutting," season.

It was getting on for about half past four in the afternoon, when I suddenly heard the most ferocious outburst of roaring proceeding from one spot, and hastening towards this direction, I was able to watch the following little drama: In the centre of the stage stood a huge herd of some thirty hinds, yearlings, etc. They were in the possession of a splendid stag, who was in the prime of his condition and strength. He was in a deplorable state of excitement, running now this way, now that, and then stopping desperately to huddle up his hinds into as small a space as possible, and meanwhile roaring and grunting until

the welkin rang with the sound. The cause of all this excitement was only too evident, for in practically every direction that I looked there stood stags, and all watching the maddened monarch in the centre. And, to set it all off, others were approaching at a trot, attracted by the noise, and evidently foreseeing a splendid chance in store. The circle drew gradually nearer and nearer, until the plight of the huge stag in the centre was indeed pitiable. He was bigger than any one of the others, and, of course, he dare not leave the hinds to drive off any single one of the other stags for fear of the ones in the rear

making off with his wives as he did so. Thus he could only run backwards and forwards, making feints at the foremost of the invaders, and then stop, with heaving flanks and foam-flecked mouth, to roar desperately and herd up the hinds. Meanwhile, the watching circle was gradually being increased, and they advanced slowly, taking their time, and some even casually feeding. Now and again would come a succession of fierce coughing grunts, as the harassed stag made a cautious effort to drive off an intruder who approached too near. These invaders made no effort to fight with the maddened beast, but merely

ran back at once. But this worry was visibly beginning to " tell " on the big stag; his glossy coat was bedraggled now with sweat, and his heaving sides were steaming. His breath came in vapoury spurts, and his rolling eyes were bloodshot with rage. He looked decidedly dangerous, indeed. However, the other stags, evidently observing these symptoms of distress, and relying on the power of united effort, became more and more restless and excited. The hinds, also, so far from trying to help their lord and master, by being obedient, were not above trying to steal away, and were evidently thoroughly enjoying this sudden turn of affairs. And then the bombshell burst!

One of the smaller stags suddenly made a determined dash into the rear of the hinds, and, of course, this was too much for the monarch of the herd, who threw discretion to the wind and charged furiously at him. This was the signal for another, and then some more, and eventually the whole of the remaining stags to rush into the confusion that ensued, and the scene that followed will be hard to imagine. For a moment the desperate stag drove away one after another, but they only came back as soon as he was engaged, and presently the poor beast gave up in a hopeless kind of way and stood there, absolutely exhausted, while he was surrounded on all sides by the stags, running neck to neck, and challenging one another over the spoil. The clamour became quite indescribable now, and the scene presented a struggling mass of hinds and stags. Then all of a sudden the confusion seemed to die down. The stags had won their way so easily that they seemed to be dazed at first, and they all came to a standstill, hesi-

tating on the next move. What prompted the following I am not sure, but suddenly the scene resolved itself into a stampeding mass of hinds, each hotly pursued by the stags. This was not very comfortable for me, as in a second they were stampeding all around me, and a terrified hind came galloping straight in my direction, followed swiftly by a stag, and I made haste to retreat out of their way.

The hinds were flying panic-struck, and the stags had completely lost all control of themselves and all that admirable dignity which they usually associate with their movements, and thus the scene was decidedly alarming. It was not long before I saw that the hinds were quite exhausted, running heavily with heaving flanks, bowed necks, drooping ears, and lolling tongues. Each stag selected at least one, and drove her off in his own direction. I cannot hesitate to admit that I was greatly relieved to see that this sudden chaos was at an end. I then saw that the big stag had managed to retain nine of his original thirty, and had driven them to a quiet corner. Not very far from him one of the invaders—quite a young fellow—was herding together his booty of six hinds, with all the pride of a big stag. Drops of foam fell from his mouth, and his panting breath issued from his dilated nostrils like little jets of steam.

The beaten despot, noticing him, saw an easy opportunity of winning back a few of his lost treasures, and forthwith advanced towards him, belling a challenge. But the smaller stag, seeing what was coming, discreetly stood aside, and the big one trotted at once up to the hinds, and began taking possession. But the stag's motto is evidently, "Seize your opportunity whenever possible," for, in taking possession

of these hinds, the stag had left his other nine unguarded, and the ousted one took advantage of this to run off with them! The big stag soon saw what had happened, but he desisted from making an attempt to recapture them, and resigned himself to circumstances; and so ended one of the most absorbing dramas that it has been my fortune to witness.

The fallow-buck, at this season, also develops a stouter and more muscular appearance to his neck than during the rest of the year. His passions find voice in a guttural grunting note—much like that of a pig. Each time that he grunts he jerks his head, with its heavy coronet of palmate

antlers, upwards. The fallow-buck has none of the dignity of the red deer, and trots crazily about, shaking his head, and thrashing the tree-trunks with his antlers. I should think that this species is almost more dangerous, in some respects, at this time, than is the red deer. The bucks really behave almost as if they were quite insane, and seem to be capable of blindly attacking anyone or anything.

The stout little black Japanese deer utters a shrill piercing scream as a challenge. I once saw two of these handsome little fellows engaged in a very stern

fight. They dashed at one another with a heavy crash of horns, and then they pushed and shoved one another for a short time, finally separating to stand and glare at each other. Then with another crash they were at it again, stumpy tails wagging quaintly as they did so. This time the force of the impact caused them both to fall to their knees, but they were up and at it again in an instant. They continued thus until one of them finally fled, pursued by the other for a short way. The latter then ran along and took possession of the little huddled group of bleating does.

CHAPTER III

THE JAY, AND OTHERS

MANY people connect the name of the jay merely with his gorgeous azure and black-barred wing-feathers—admirable for salmon-flies, and so becoming in a hat! Others think only of him in connection with sucked eggs and bad "pheasant" years. Yet it seems to me that this unfortunate bird deserves a closer and more friendly acquaintance. As a matter of fact, although the jay undoubtedly does create quite a large amount of damage during the nesting season, he seldom strays beyond the nests of small birds. There is no doubt at all that he occasionally develops a liking for pheasants' eggs, but never to the extent that gamekeepers credit. I believe that half the egg-crimes put down to the jay are committed by the jackdaw, rook, or crow. There are also stoats and weasels to be considered, and even our prickly friend the hedgehog does so far forget himself at times as to believe that eggs are fair game. And that American usurper—the grey squirrel—is a rascal of the lowest type with regard to eggs and young birds. If the jay can procure plenty of acorns he will not go out of his way for eggs. Acorns are his favourite titbits, and hence wherever there are oaks in abundance, there will be found jays. He is also partial to nuts, and he is quite a regular ground-feeder. On the outskirts of woods I have often

watched jays, in company with green woodpeckers, busily employed in raiding the ant-hills. On these occasions he may be seen hopping in a very clumsy manner for so large a bird, with his reddish-grey plumage blending rather well with the red hard-heads and clover surrounding the ant-palaces. As he jumps sideways, one may catch the flicker of the white patch on his wings, and he frequently cocks his well-rounded black tail. Even when unalarmed, the jay appears to be a quivering mass of nerves, curiosity, and impudence. The crest is constantly raised and lowered, the head now cocked on this side, now on that, and his bright eyes are incessantly on the watch for danger. He is one of the most difficult of birds to approach, since he is so wary. When totally at his ease, however, the jay affects a jaunty air, like the clown he is, and is full of rakish impudence. He plunders and bullies the smaller birds into submissiveness, and is evidently considered a " vile and worthless fellow " by the feathered community as a whole. The jay is by no means of a courageous disposition, and he is easily overcome by the angry mobbings of any small bird whose nest he has, or was about to have, robbed; and he is absolutely no match for the irate missel-thrush or blackbird. Amongst other charges, he is accused of kidnapping young birds. It is hardly likely, though, that he would have the courage to pounce on a young game-chick before its mother's eyes, and thus all the young pheasants that fall victims to the jay must be either weaklings or " fools "—and surely these are the very ones that ought to be killed off ? That this gaudy rascal is of great use at many times of the year is only a matter of observation. Jays spend quite half their

time on the ground searching for insects and grubs of various species, and then there are post-mortems to be considered. If I may be permitted to quote Mr. T. A. Coward's excellent book, "The Birds of the British Isles and their Eggs," Professor Newstead counted 127 click-beetles in the stomach of a single jay, killed in April. These click-beetles are, of course, the parents of the "wireworm"—one of the most injurious of agricultural pests. The jay is also credited with being an assiduous planter of oak-trees, since he periodically drops acorns in out-of-the-way places during his flights to and fro.

To catch a glimpse of this handsome fellow at home is not only interesting but amusing. He hops jauntily from bough to bough, peering through every gap in the foliage with his sharp clear blue eyes. And it is extraordinary what restless eyes those are! The bird never seems to be still, is always on the alert, and nothing escapes his eyes. His streaky crest is perpetually raised and lowered, and the tail cocked and spread as the mood takes him. At the slightest sound or movement he is all curiosity—poking his head now this way, now that, and peering sideways to get a better view. Having viewed the object, he cautiously, if it further arouses his interest, comes hopping down, branch by branch, ready to take instant flight at the first cause of alarm. On these occasions, when he believes that he is quite unwatched, the jay chatters to himself in strange little notes—not a bit to be associated with the harsh, jarring screech which is his alarm cry. If left long enough his curiosity inevitably overcomes him, and he will examine seriously any strange object. If the strange object should possibly be stirred by the wind, and thus

move—ever so slightly—away will fly Mr. Jay, whose nerves have been all strung to their highest during his cautious inspection, and the wood will echo to his rasping screams. As soon as he sees that it was a false alarm, back he will come, looking rather silly, and taking a greater interest than before.

But the jay holds the important post of being chief sentinel of the woodlands, and, like the haartebeeste of the African veldt, he lives up to his calling far too well—at least, from our point of view, and also from the points of view of all predatory animals and birds.

The chance appearance of any murderously inclined fox, weasel, stoat, or rat, is instantly hailed with the greatest excitement. The jay hops down on to one of the lower branches, so that he may get a clearer view of his victim, and then he gaily proceeds to mob the wretched creature in the loudest and most stinging language possible. The harsh outcry is so sharply out of harmony with the surrounding scenes that one instinctively desires to get rid of the aggravating pest who persistently follows you, hopping from tree to tree, when he sees that you have not a gun, and takes the greatest pains to keep you in sight and within range of his voice until he has driven you away from his own particular vicinity. By this time, of course, another jay has been attracted by the sound, and hurrying to the spot relieves the first one! If possible, they will escort you thus to the nearest gate, but if you flatly refuse to pay any attention whatever to the abominable noise, they eventually tire themselves out, and flap off elsewhere in search of a more interesting target for their keen-edged tongues. The torture you undergo during the process of tiring them out, however, is in many cases hardly worth while.

In the case of a fox or stoat, the jay will hover just above the head of the discomfited wretch, drowning it in insults.

The extraordinary variety of notes to which the jay can tune his voice is remarkable, and I have again and again been taken in by his wonderful mimicry of other bird-notes. In the mating season, he is said to attain a low warbling song, but this I have never had the opportunity of hearing.

To obtain a satisfactory view of this comical fellow is by no means easy. The only way, in fact, is by concealment in a frequented locality, and patient vigil until the shy bird condescends to show himself. Even then it is surprising how very inconspicuous his gaily coloured wings are. They are only seen to full advantage when he is on the ground, or by an occasional flash amongst the emerald foliage of the oak or whatever tree he happens to be on.

In flight, the jay loses what little dignity he ever possesses when perched or on the ground. He flaps in a most ungainly way, and tends to give the impression that his body is too heavy for the rounded wings. He thus periodically "drops" in his flight, exhibiting a rather jerky motion. His method is to give a few flaps, then glide, then a few more flaps—and so on.

And now a word for the "others." Next to the jay, in bird-books and museums, one will usually find that pied imp—the magpie. Apart from points of colouring and appearance, the magpie is merely a rather more impudent and mischievous edition of the jay. The two species possess much in common with one another, though they inhabit rather different types of country—the jay preferring woodlands and "Mag" preferring commons, moors, or downs.

When seen at a distance, the magpie appears to be merely black and white, but through strong field-glasses or when in the hand his plumage reflects the most beautiful and delicate sheen. His wings gleam with a bluish-purple light, and his long graduated tail is of a superb bottle-green, fading into coppery black at the tip. On the whole, therefore, he is a decidedly more striking bird than the jay. His gait, when on the ground, is an extraordinary mixture of walk, waddle, and hop. There is absolutely no dignity at

all about the magpie. He is quite up to every trick and device worth knowing in avian society and, like the jay, has a most marked gift for minding other people's business. You have only to cast yourself down on some sunny slope of the Downs and watch his antics on the opposite slope through telescope or field-glasses to be able to size up all his characteristics at a glance.

He arrives with a jerk, wagging his long glossy tail up and down, and full of importance to the brim. After strutting around in the sun for a while, he takes two or three ungainly sideways hops to the nearest

ant-hill. Here he becomes busily employed in devouring the inhabitants. Very shortly he is joined by another, possibly his mate, and together they waddle and hop about, chattering to one another in the most extraordinary medley of sounds—half-animal, half-human. The long tail is carried sometimes horizontally, sometimes cocked rakishly upwards, and sometimes dragging carelessly on the ground. In any case, it is nearly always kept in perpetual motion.

Everything around, including every passing shadow of a flying bird, is carefully scrutinized with the head a little on one side, and a low enquiring chuckle. The alarm note is a harsh, rattling, laughter-like "chukker—chukker—chukker—chuck." It is one of the most characteristic sounds of the Downs.

In flight the magpie is even more grotesque than the jay. In this case, his long tail seems to be too heavy for the short body and feeble wings. Sometimes he stops, as it were, in mid-air, spasmodically flapping his wings before continuing.

His favourite outpost is usually the topmost spray of some hawthorn, where he can eagerly gobble up the red haws in due season, and from which he can obtain a clear view of the surrounding countryside. Perched thus, swaying gently in the cool breeze of the Downs, he becomes as perfect a sentinel as his woodland cousin. Like the jay, he is the very incarnation of nervous curiosity, quizzing every single sound and movement, and interminably cocking and spreading his lustrous tail. As to his palate, he is a veritable "Jack of all trades," despising nothing, from fruit to the often decomposed remains of fur and feather. And he is by no means above assassinating some of his smaller neigh-

bours, but, at least one thing to be said in his favour is that he is partial to mice. He also naturally indulges in his share of grub-killing on quite a large scale when he has young. With regard to his nest, the magpie shows intelligence above the average bird, for he builds a thorny roof over it, which decidedly increases the difficulty of foreign admission. The nest is also usually placed in some thorn-tree.

In captivity "Mag" is apt to become a deplorable nuisance. He has a most decided and unfortunate liking for all bright and glittering objects—such as rings, jewels, thimbles, etc.—which, having been obtained by some deceitful means, are securely hidden by the thief. At times he adds insult to outrage by forgetting where he has hidden his captures.

At any rate, however dark his character, he is a cheerful and amusing bird, as handsome as he is impudent, and his hoarse chatter is pleasant, if not musical. On acquaintance, he speedily finds a soft spot in one's heart, mischievous as he is.

The last worthy to be considered in this chapter is the homely daw. Whatever else he is, the jackdaw is a regular church-goer. In fact, with his sombre plumage and grey cowl, he might pass for an avian religieux.

However, the jackdaw is the last person to "cry out over spilt milk," and he abundantly makes up for all his defects with a boldly self-confident manner in his every movement. He possesses none of that jerky, half-guilty manner of the jay or magpie, but clearly considers himself a "bird of the world"! He consorts with the rooks, and gives one the impression that he tries to copy the dignified deportment of the rooks. I think that the rooks

probably consider " Jack " as being on a lower scale of society than themselves, but quite a tolerable person.

Anyhow, whatever the opinion of the rooks may be, the jackdaws plainly show their intentions of consorting with them. They can always be distinguished from the larger birds by their hurried gait and their high-pitched voices.

When seen to advantage in the sunlight, his mantle and wings show many gorgeous reflections of violet and purple, though he is not so lustrous as the rook. He is a decidedly intelligent bird, and, as a pet, possesses all the impish tricks and manners of the magpie. His favourite nesting-place is the cranny of some steep cliff, holes in trees, or, best of all, the belfry of some church tower. Very often steps of church towers are found choked up with the litter of twigs and other débris—for the jackdaw is a very untidy nest-builder. His sable form is commonly seen flapping round the old grey towers, piercing the air with sharp cries.

Amongst the limestone quarries on the face of Leckhampton Hill, Cheltenham, I used to watch scores of jackdaws. I remember one instance, taken from my Natural History diary, when I was the witness of rather an amusing little episode in jackdaw domestic life. A pair of evidently quite newly-married jackdaws were sitting together on a piece of rock halfway down the face of the cliff, and not far from the famous " Devil's Chimney-Pot." Many others were flying to and fro, below and around. Presently one flew past carrying a morsel of food in his beak, and this filled the hen-bird of the aforesaid couple with envy. She accordingly pecked and

hustled her unfortunate helpmate until he flew off in despair to find her some tempting morsel. When at last he returned with the desired food, they fondled each other in a very pretty way, gently "toying" with one another's beaks.

But poor "Jack," on account of his taste for eggs, is a marked bird, and one often comes across his battered corpse swinging in the breeze as a scarecrow, or else nailed to a barn-door.

CHAPTER IV

NATURE BY NIGHT

" Wrap thy form in a mantle gray,
Star-inwrought !
Blind with thine hair the eyes of day;
Kiss her until she be wearied out,
Then wander o'er city, and sea, and land,
Touching all with thine opiate wand—
Come, long sought !"

SHELLEY: *To Night.*

NATURE is glorious, indeed, by day; but during the sun's brief reign over our countryside she dwells almost in subjection—a goddess bereft of her power ! If it were not for the birds and the flowers, how little of Nature's beauty should we enjoy ? Certainly at night the birds, or at least the majority of them, retire from a leading position on the stage, but the flowers in many ways rather tend to strengthen their personalities, in spite of the fact that many of them are hidden by the darkness. Their various scents linger on the night air with a clearness which is often quite imperceptible during the day. In fact, many plants thus " cry out their identities " so powerfully, that one might almost credit them with more " life " at night than at other times, though this is merely an illusion.

One thing, however, is quite certain about Nature by night, and that is that she is by no means in subjection then, but stands forth in all her mysterious beauty—fascinating and awful—a very goddess !

The human being inevitably receives the impression that he is the spectator of an endless drama consisting of both tragedy and comedy, in which he is sadly out of place. One certainly feels thus when wandering through deep woods in broad daylight, but at night it is a thousandfold stronger. How discordant and loud, for instance, sounds the chance snapping of a twig under one's foot! It is also the cause for a mysterious and pointed hush all round. The effect, at times, is quite frightening in its intensity, as the tall trees stand loftily indifferent, occasionally whispering ominously in an undertone, and at times bending and nodding towards one another in a strangely realistic manner.

The best time to start forth for a nocturnal country walk is at about half-past eight of a calm summer's evening. The sun has set behind the distant trees, suffusing the clear sky with rosy lines which fade gradually into the soft twilight. Silhouetted against this lovely background the tops of the trees assume an inky black hue, and the hedgerows present a scene of tangled tracery. The opening of the evening revels is heralded by the cheery fiddlings of the crickets in the grass by the roadside. From the top of an apple-tree in the neighbouring orchard a thrush pours out his full-throated evening melody to his nut-brown mate lurking in the shrubberies; while from the tuft of hazels, nodding in the evening breeze over the way, that accomplished dusky knight, the blackbird, scatters his mellow flute-like notes in rich rivalry. How exquisitely clear these avian carols sound in the evening!

On the horse-pond in the Long Meadow the ducks cackle and flirt, and the soft contented clucking of

the moorhens reaches the ear as they swim amongst the rushy border, jerking their white tail-feathers conspicuously, peering through the reeds in search of food. The gnats dance merrily over the smooth surface, and presently a mother moorhen escorts her tiny family of black balls of down across the pond on an excursion of discovery or else, perhaps, to teach them the geography of their little world.

It is good, indeed, to linger here awhile, with the beautiful vespers of thrush and blackbird still falling softly on the ear, and to watch the dwellers of the night gradually appear. Presently the faint, satiny rustle of wings overhead draws my attention to the aerial escapades of the tiny elf-like bat, who is accompanied anon by his velvet-skinned mate. Together they swoop and circle over the pond, and yet the gnats still continue their giddy reels over the unruffled surface, blissfully unconscious of the flitting deaths about them. A large dragon-fly, dazzlingly arrayed in blue and green, shoots past in hot pursuit of some terrified insect, which twists and turns despairingly in a hopeless attempt to escape.

At last, from amongst the rushes by the border, and from the close green carpet of duckweeds at the further end of the pond, sounds the quaint croaking of a frog, soon joined by another, and so on, until quite a little chorus chimes out in the gathering dusk.

But it is delightful to wander quietly down the lanes in the gloaming, past the scented hedges:

> "Quite over-canopied with luscious wood-bine,
> With sweet musk-roses, and with eglantine."

The crickets, so silent during the day, create quite a splendid orchestra, and ever and anon comes the

drowsy booming drone of a great dor-beetle, as he glides heavily past on some mysterious errand. Sometimes he will fly straight into your face with a " smack " like a small stone ! As the dusk increases, the ghostly form of the barn-owl, heralded by a truly blood-curdling shriek, floats out from amid the farm-buildings. On noiseless downy wings he drifts around the cattle-sheds and stables, whence there comes no sound save the rustling of the rats in the straw and the steady munching of the horses, broken occasionally by the heavy stamping of ironclad hoofs.

The air around is alive with the countless flitting forms of tiny satin-winged moths who seem to spring suddenly from nowhere. Indeed, it was for a long time a puzzle to me as to where these dainty creatures hid during the day. At last one day, while peering amongst the dried remains of the wild rose calices, the secret was unfolded before my eyes, for I noticed one dried sepal that seemed slightly out of place, as if bent. On looking more closely, however, I perceived that the supposed sepal was in reality a pretty little moth, with her wings wrapped tightly around her. She was waiting patiently for the night when she should begin her revels. My eyes being thus " opened," I soon perceived several more—all posing instinctively as dried sepals ! However, as dusk falls, they all come trooping out in large numbers to sport and frisk in the meadows and woodlands. It is then that many of them fall victims to the bats and the quaint owl-like night-jar.

As we leave the road, where now and again an old toad comes stealthily hopping across, we turn into a large field of standing corn, and walk down the border. There are constant strange little tickings, scratchings,

and the scurryings of feet in the hedge, and often one hears the rustling of that tiny red rogue, the harvest mouse, as he scrambles cleverly up and down the cornstalks. As the cool breeze blows softly over the heavy ears of wheat, it sends a wave across the field which sets the ears rattling and nodding against one another, and creating a sound that would be all but inaudible during the day.

Up in the sky, now, the stars begin to peep out, and the moon shows her silver face bashfully from between the scudding clouds. Presently she shines out resplendent in all her glory, tipping tree-tops and homestead roofs with silver, and casting the long moon-shadows. From the dark form of the wood near by a tawny or wood-owl utters her sweet moaning cry, and is answered at various intervals by others of her kind. I love the querulous and melancholy hooting of the tawny owl—it is one of the loveliest of the voices of the night. Before long one of them comes floating out of the wood, just a noiseless shadow, and quarters the adjoining clover-field whose balmy scent sweetens the night air.

At times one hears the short sharp bark of the fox, answered by the extraordinary squalling cry of the vixen, and on lucky occasions I have met red Reynard, as he trotted noiselessly through the fields. It is not often that one meets a wild, unhunted fox, but when I have had such a lucky chance as to catch a glimpse of his furtive form, I have always been struck by his cool and collected behaviour. He never yields to wild alarm, like a rabbit, hare, or deer, but calmly trots away silently and stealthily, and it is marvellous how suddenly he seems to vanish. It is seldom, indeed, that one ever catches a fox "napping." His

alertness is proverbial, like that of the weasel. I am quite sure that he often glides away successfully where a sudden rush would betray him. Usually, if he is merely disturbed, his curiosity seems to get the better of him, and he will stop to look back at you

searchingly before finally vanishing into the undergrowth.

In the uncertain, blurred light of the dusk—the grey half-light—the rabbits become quite invisible as they sit about in groups, busily nibbling at the turf and clover. Their presence is usually betrayed by the sudden rush and scurry at your feet, followed sooner or later by muffled thumps—splendid danger-

signals—that travel for long distances on the ground, and delivered by smart blows of the hind feet. When a number of them are sent scampering at your approach, their white " scuts " bob up and down like so many will-o'-the-wisps. After the first mad panic, they sit up on their haunches with necks outstretched

enquiringly, and nobbling noses seeking details from the wind.

Later on in the year, when the fields of corn have given place to stubble that crackles under your feet and sends little spurts of water, collected in the hollow stems from the last rain, over your legs, families of big brown hares may often be seen chasing one another about like kittens, or else feeding placidly.

When the night is closing down upon the countryside, it is good to stop awhile and gaze at the dazzling splendour of the heavens. On a clear summer's night the glory of the firmament is unsurpassable. Out in the open country, with only the dusky forms of trees and hedges for company, save for the shadowy flight of some night-bird, is the ideal setting for the contemplation of the heavens, lit up by a myriad scintillating globes. As one gazes upwards at the twinkling starry host, crossed by the misty, luminous belt of the Milky Way, one cannot repress a strangely emotional feeling, so mysteriously beautiful and superb is the sight. One's thoughts might even seem to soar upwards and fly delightfully amongst those multicoloured orbs! At any rate, they are held irresistibly by the silent splendour of it all, and an extraordinary sense of the diminutive size, in comparison, of our Earth inevitably creeps in and fills us with awe. Surely this is the very personality of the Creator Himself! Surely no spectator of this indescribable grandeur can fail to be reminded of the almighty power behind it!

There are few natural sights more fascinating, again, than the mysterious flight of a meteor, the golden gem that displaces itself from amongst the

surrounding constellations, and falls across the starry vault, to disappear into infinity. It is worth while to take an interest in the stars, for once the puzzle of the constellations is solved, they remain as never-changing friends. Certainly they constitute Nature's grandest aspect.

Nature in the forest at night is very different from Nature in the forest during the day. At first it is nothing less than terrifying, until one learns to love the weird effects of the trees and shadows. The tall straggling pine-trees stand out like huge sentinels, and the wind soughs through the upper branches in a moaning lullaby. In some favoured localities, on warm silent nights, the droning " churrr " of the night-jar falls monotonously on the ear, as the vocalist (for he is certainly no songster) flattens himself horizontally along a branch in a ferny dell. Sometimes I have seen him thus settled on a rotten stump right out in the middle of a meadow near a river. Presently the bird stops his " churring," and, rising noiselessly, flaps silently on narrow curved wings in and out of the glades, entrapping many a careless flitting moth, or cockchafer, in the long stiff bristles that fringe his wide-opened bill.

Down by the river all is silent save for the merry gurgling of the water and the startled " plop " of a water vole, disturbed as he nibbled the succulent rushes by the bank. The red leathery blossoms of the knotted figwort here give out their rank odour more strongly than during the day. Many moor-hens roost in the willows on the bank, evidently to ensure their safety against such undesirable visitors as prowling foxes, otters, stoats, weasels, and rats.

Stoats often may be encountered near the banks of streams and rivers, and when wandering through the woods at dusk, I have often heard the piteous screams of a rabbit as he feels the sharp teeth of this most ferocious little hunter pierce the back of his neck.

CHAPTER V

LATE AUTUMN IN THE PARK

IT was the beginning of November, and signs of approaching winter were already beginning to manifest themselves in the scarlet hips and haws that deck the hedges; in the twirling down of the last russet leaves from oak and beech; in the lengthening nights and shortening days, and in the cold, windy evenings. The winter months are also heralded by the increasing flocks of weary fieldfares and redwings that flutter feebly inland from the sea, uttering exhausted "clucks" of relief as they reach the promised land.

As we tread the withered brown grass, a very different appearance from that of the gorgeous days of early autumn greets the eye. In the earlier months, the varied tints of orange, russet, red, and green exclaimed upon the grandeur of Nature.

There are few sights so beautiful as a beech-wood in early autumn, and no other kind of wood presents such a beautiful blend of colours, set off by the tall shining grey trunks and the lofty branches, and carpeted with the russet of fallen leaves. Here lie the fallow-does—dainty, graceful creatures with large soft eyes that hold the observer in a mysterious spell, while the strong bucks grunt and engage one another in a crazy kind of warfare.

Beware of the fallow-buck then! he seems to lose

all control over himself at this season, and becomes a very fiend—insane with love, and the most jealous of lovers. He runs backwards and forwards, jerking his head and grunting furiously, while his breast burns with savage hate for others of his sex.

But by late autumn all these love-affairs, or, at least, the majority of them, are settled, and the result is strange enough. Having spent restless and exhausting months in fighting and anxiety, the bucks—and this is the case with all deer—deliberately leave the does which they lately guarded so jealously and congregate quite peaceably with one another.

The fallow-deer seem to begin, and therefore end, their courtship battles after the red deer.

By now the red deer have lost their glossy coats, and wear rather ragged and greyer ones than those of the winter months. The stags are lean and exhausted after the strenuous months of September and October, and they spend most of their time in lying down or feeding together in friendly groups—having quite lost interest in the hinds. It is very noticeable how grey some of the hinds turn in winter.

There was one magnificent "royal" stag in the Park, with splendid antlers containing sixteen points, and I noticed that he took no part in the courtship fights. Perhaps the heavy weight which he carried on his head was too great a handicap for him. He was always to be found in a particular spot, with a kind of bodyguard of five other big stags—all royals, and with heads only second in size to his. So very imposing was this splendid creature with his retinue that I nicknamed him "The Monarch of the Park." I often spent weary hours in trying to get a correct sketch of his wonderful antlers, but whenever he

casually gave his head a shake, more points seemed to appear in the cluster on top, until I almost despaired of succeeding.

The woods now have doffed their lovely tints of yellow and red, and present chiefly the living hues of conifers and other evergreens and the various browns of bare twigs, with here and there a few brilliant splashes of colour where the leaves have not fallen. The rich carpet of fallen leaves has become much thicker, and on the wooded slopes, where it is interspersed with the smooth grey trunks of the beeches, the effect is very pleasing. Towards evening, when the wind blows in from the sea in fitful gusts, the fallen leaves go prancing and whirling down the paths and over the sward like so many small brown elves, and one must inevitably agree with Sir James Barrie, as he remarks in " Peter Pan in Kensington Gardens," that " Nothing has so keen a sense of fun as a fallen leaf " !

The deer appear not to mind when the squadrons of flying leaves come dancing in amongst them as they lie contentedly chewing the cud, or wander about taking dainty bites at the grass.

From the beech-tree yonder comes a rustling sound, followed by a shower of tumbling leaves, as a perky red squirrel jumps carelessly from branch to branch, curling his feathery tail gracefully as he does so. He is after the beech-mast, and presently he comes scurrying down the bole, stopping awhile to peer cautiously around the sides. As I am standing motionless he fails to notice me at first, and he lands with a bounce on the leafy carpet below. Here he scrambles about greedily, jerking his beautiful brush spasmodically, and busily gathering nut after nut. At a

slight movement on my part, he instantly hurries up the trunk again, stopping when halfway up to glare back angrily at me and let out a chattering torrent of abuse—" holla-wolla-wolla "—jerking himself up and down like a Jack-in-the-box the while.

It is extraordinary to see how squirrels hurl themselves about in the tree-tops, in every manner of acrobatic movement. At the same time their movements are so perfectly agile that it inevitably gives one that sense of pleasure that is experienced when

watching a wild animal or bird at home in its own particular environment.

From the direction of those few beech-trees clustered together ahead sounds the regular tapping of a green woodpecker. Many of these gaily painted birds may be seen in the Park, often hopping awkwardly over the ant-hills in search of the ants and ant pupæ, which they esteem as a great delicacy.

When seen in a good light thus, the green woodpecker is very beautiful. In fact, he, like the kingfisher, looks almost too brightly coloured to be an inhabitant of a temperate clime.

Those merry little acrobats, the titmice, exist everywhere amongst the leafless twigs.

Sometimes one is directed by a volley of sweet liquid notes to a low thorn-bush, and perhaps here may be seen a family of those exquisite feathered mites—the long-tailed tits. They always seem to be in a perpetual hurry, flitting speedily from bush to bush, and chirping out a series of tiny querulous notes, as if they were ever seeking something that was lost.

A few careless wind-blown notes fall on the ear like the chime of fairy bells, as a flock of linnets fly overhead. Of all bird-song, I think that the linnet's stray, scattered ditty, as he perches on the topmost spray of a thorn-bush, is the sweetest and most musical. It is not unlike the melodious tinklings of Japanese wind-bells.

The jay's staggering flight may often be noticed as he vanishes into the dark interior of some wood, and his harsh grating scream is still more often heard.

From the lake down below comes the subdued quack of the half-wild ducks, and towards evening that region resounds with the unearthly screams of the peacocks. Many of these gorgeous birds are to be seen walking proudly about over the verdant banks of the Park just above the lake, and most picturesque they are. It is a strange thing how easily even such a brightly coloured bird as the peacock can conceal himself to the point of invisibility in an English park! The other day I happened to pass by a dense mass of entangled twigs and branches, the remains of a fallen tree, clothed sparsely with a few lifeless brown leaves. A slight movement arresting my attention, I suddenly perceived the motionless form of a mag-

nificent peacock squatting on the ground in the thick of this untidy tangle. As soon as I had discerned him thus, the bird " stood out," of course, in all his glory, but except for that chance flash of a bright eye, I should never have noticed him.

Nuthatches are plentifully distributed in the beech-woods, and so are the shy, mouse-like tree-creepers.

As we wander over the long tufts of withered grass, a hen pheasant rises almost at our feet with a startling " whirr," and glides down the slope on outspread wings, with an occasional beat or two. I have always noticed with interest that a pheasant, thus disturbed, invariably steers himself to the nearest bed of dried leaves under the trees, and thus practically " vanishes," so well does his back harmonize with the surrounding tints. The bird evidently realizes his protective coloration.

As everybody interested in wild creatures knows, the great art in successfully observing them at close quarters is to remain quite motionless. One has, as it were, to change swiftly from being a living human being into a dead stump of wood or any other inanimate object. As soon as you are motionless thus, birds, at any rate, seem either to fail completely to notice you, or else take you for the aforesaid tree-stump. With mammals one must be more careful, as their keen sense of smell has to be considered, and accordingly the direction of the wind must be studied. But with the help of a little patience the nature-lover can be the spectator of one of those really fascinating experiences—a wild animal or bird at home and unsuspicious. It was thus that one day there was a movement in the long grass, and out stepped a splendid cock-pheasant—so close that I

could almost have touched him. The glossy neck was raised, and the keen little eyes examined the motionless form before him. For some moments he remained thus, and then he proceeded with dignified gait to walk about, jerking his head slowly backwards and forwards. How gorgeously coloured he was ! and especially lovely did he look when amongst his natural surroundings—thrice as beautiful as the bedraggled corpse hanging in the poultry shop ! He " wormed " his way through the grass, stopping now and again to stretch up his neck and glance around in search of danger. The sunlight fell on his glossy head of metallic green and purple, and caused beautiful pale mauve lights to play on his coppery breast. His delicately pencilled and mottled scapulars faded into the greyish-green of the back in the softest and most beautiful blend possible. As the bird halted there thus, one leg slightly raised from the ground, he presented a sight not easily to be forgotten, and it would seem almost like sacrilege to take the life of such a lovely creature.

However, it is now getting late in the Park, and the evening wind sweeps across the grass tufts. Distant objects begin to lose their distinct outline, and the mysterious voices of the trees begin to whisper to one another across hill and valley. One or two of the brightest stars begin to peep out here and there—Altair in the south and the golden Arcturus towards the west. Two faint black spots crawling across the sweeping expanse of yonder hill prove to be a fallow-doe, closely followed by her antlered mate, wending their way slowly towards the cover of the trees, who seem to call to them softly. The lofty coronet on the head of the buck appears to be almost too heavy for

him, as he wearily nods his head backwards and forwards.

In the long grass beneath those horse-chestnuts a couple of dead branches suddenly give a slight shake, and then they resolve themselves into a pair of antlers. They belong to a stout little black Japanese buck who is watching us intently, though only his small upright antlers are really visible. Amongst the long shadows cast by the tree-trunks, also, a pair of broadly palmated antlers suddenly seem to spring into existence, and thereby give us the opportunity for discerning a small herd of fallow-deer lying down, equally quiet. The red deer also are trooping off to cover.

Down this hill comes an avalanche of racing leaves, and in amongst them the lightly leaping form of a little brown stoat, though he sees us instantly and bobs back into cover.

But the owls are beginning to cry out that it is "setting-out" time, and therefore time for us to be out of the Park. We had best turn homewards lest we be caught by the fairies.

CHAPTER VI

A SEPTEMBER DAY ON THE DOWNS

THERE are few resorts so delightful on a warm September day as the South Downs of Sussex. The clear, cool breeze, often enriched by the fresh air from the sea; the fascinating views to be contemplated from these Downs; the pleasant walks up and down the narrow bridle-tracks, and last, but not least, the varied bird, mammal, and botanical life to be observed—all these contribute to produce an almost unequalled charm for these smooth, undulating chalk Downs. They also combine in making these hills a paradise for the Nature lover. Gilbert White, in his immortal "Natural History of Selborne," alludes to the smooth, rounded beauty of the Downs.

Their steeply sloping sides are plentifully decorated with the mauve scabious and nodding clumps of dainty harebells. The closely cropped sward possesses a soft, springy surface, which is very pleasant under foot, and which is decidedly restful when one goes for a long tramp on a hot summer's afternoon. In favoured localities one frequently comes across that pretty little sulphur-coloured inhabitant of chalky districts—the velvety rock-rose, and also the pale yellow clusters of lady's bedstraw clinging closely to the bosom of mother earth. On the summit of the particular Down that I have in mind, we find glorious stretches of rich purple heather mingled with "waves"

of " hot-smelling " bracken. Here the rabbits bob in and out, and sit up to wobble their noses, and chase one another about like kittens. Here the nimble lithe lizard darts about with an agility that is astonishing. It is quite good sport trying to capture one of these beautiful little beasts. Great caution and alertness, combined with quickness of movement, is necessary before the clever little reptile can be caught. Once captured, however, an examination of his body is worth while. He wears a gaudy orange waistcoat mottled with black, and his sharp little eyes are like two beautiful jewels. The lizard is an old friend of mine, and I have kept him on the rockery in our garden, much to the horror of the gardener, who firmly believed that he was capable of biting with deadly effect.

Amongst this heather, too, dwells another reptile—not so popular as the lizard, though quite as harmless. This is the poor grass or ringed snake—a martyr in a good cause! How many grass-snakes are *bravely* killed during a year, and how many children have been miraculously saved thus from instant death? And yet there is no more harmless nor peaceable creature living. He is useful, too, in that he destroys mice when he can catch them, and hosts of noxious insects. His favourite dish apparently is a fat young frog, and many frogs fall victims to this handsomely marked reptile. The grass-snake is a particularly easy creature to tame, as he soon seems to know whether you regard him in a kindly light or not. Unfortunately, until he has found this out, he has an objectionable habit of exuding a white fluid a most abominable smell which clings to any article of clothing that comes into contact with him when thus annoyed.

It is just as well, therefore, if a capture is effected, to hold the snake at arm's length, until he has calmed himself down. This usually takes place in quite a short time if he is held gently and your friendly intentions displayed. The snake, however, is a hard fellow to catch, as he is quick of hearing, and remarkably speedy in vanishing amongst the wiry stems of the heather. The adder also may sometimes be seen sunning himself in some open spot amongst the heather, but the Downs are not the best place for adders. This species, though, commands respect and a wide berth. Anyone, however, who feels brave enough to attempt a capture of this dangerous snake cannot do better than consult W. H. Hudson's tactics in his chapter on adders in "The Book of a Naturalist." Personally, I am content with the grass-nake!

The most distinctive bird of the Downs is undoubtedly the wheatear. You usually meet with him about halfway up the ascent, and he apparently takes upon his small self the guardianship of your person, for he follows you faithfully wherever you go. At times he is joined by his pale brown mate, and then together they silently accompany you for long distances, flitting from stone to stone and ant-hill to ant-hill. The most conspicuous part of this neat little grey bird is his white rump and black tail. The latter is continually jerked whenever the bird alights, and so inevitably catches the eye. It is strange how companionable this grey ghost of a bird becomes, so that when he suddenly vanishes his company is missed. The wheatear is, indeed, the living spirit of the Downs. Presumably his object in thus dogging your footsteps is curiosity.

Another characteristic bird here is the kestrel. Of all the hawks, few, I think, are quite so fascinating as this wonderful hoverer. They seem to be commoner here than anywhere else that I know, and one frequently sees five or six poised like toy kites in the air together. When seen from above, his ruddy back is very beautiful. The more one watches the kestrel, the more fascinating becomes his unique flight. The bold sweeping curves in which he circles while scanning the ground below are, I should think, almost unequalled in bird flight. But of the kestrel I have more to say later.

The raucous chatter of the magpie is to be heard resounding all over the Downs, and it is a common sight to see his flickering pied form melting away in the distance. On the summit of the particular Down that I am describing, there are large woods, and thus the jay and green woodpecker are also much in evidence. As a matter of fact, I have often seen woodpeckers on the Downs some distance from the nearest wood. On this Down, also, I was rather surprised to find the willow-warbler as being one of the commonest birds there. There were numbers of these pretty little birds all over the more wooded areas.

The green woodpecker delights in the rounded ant-hills, and here he may often be seen, his handsome plumage all agleam in the sun. As he turns his back on you, the golden yellow rump flashes into view. The moment that the bird becomes aware of the presence of an intruder, he flies off with that peculiar uneven up-and-down motion that distinguishes him at once. It looks almost as if it is as much as the bird can do to keep himself in the air. As he

disappears thus his ringing laughter-like notes—"Kew-kew-kew"—peal out, frantically disturbing all other wild creatures in the vicinity. Thus it behoves one to keep a wary eye on this gentleman in green.

The rabbits are greatly in evidence, and the flash of their white scuts catches the eye everywhere. All over the more open parts of the Downs one finds the bleached white skulls of the rabbits. The commonest folk in the district, they fall a ready prey to all who are carnivorously inclined—both furred and feathered. It is an extraordinary thing, but one does not often encounter hares on the Downs. They seem to prefer the ploughed fields and stubbles of the "lowlands."

The flora of the Downs is varied and beautiful. Along the shaded lower slopes grows the tall clustered thyme-like marjoram—a very pretty and elegant plant. The graceful blue field scabious predominates, and also the sheep's-bit scabious. The broad yellow umbels of the fennel flourish also along the lower slopes. Growing in sparse groups, but more or less sprinkled all over the sward, one finds the yellow and red varieties of the bird's-foot trefoil—the wild "buttered eggs." Perhaps the most delightful and characteristic of Downland wild flowers are the tiny pink blossoms of the wild thyme which nestle closely to the earth. I have already mentioned the delicate harebells and the crisp yellow lady's bedstraw. Sometimes one comes across the tall, stiff groups of the yellow mullein, resembling somewhat yellow foxgloves in appearance (though their flowers are totally different), and whose broad leaves are woolly to the touch, being clothed with abundant silky hairs. I

have also found numbers of the handsome purple felwort, a member of the Gentian family, growing in favoured localities.

A flower that I have found flourishing on the South Downs in greater numbers than elsewhere I know of is the purple orchis. Sometimes one comes upon quantities of these beautiful plants peering through the grass.

Here many species of fungi grow also, amongst the most striking being the tall and scaly parasol mushroom, various species of boletus (some of which, incidentally, prove very good eating). The deadly vernal are venomous toadstools of a sickly yellow colour, very often fatally mistaken for mushrooms, and many kinds of " puff-balls." I have also come across the starry earth-ball frequently. Needless to say, the common and horse-mushrooms are abundant everywhere in the right season.

As a rule, the Downs do not possess many " trees " in the proper sense of the word. Here and there, as on this particular Down, one comes across well-forested areas, but, on the whole, the undulating stretches of grassland contain only low-stunted wind-swept thorns, junipers, and gorse-bushes. It is a true saying:

> " When the gorse is out of bloom
> Kissing is out of fashion,"

for there are invariably some of the fragrant golden blossoms in view. Amongst this furze one is almost sure to meet with that smart little fellow, the whinchat. His more brightly coloured cousin, the stonechat, is equally abundant. Richly dressed in a dark brown cap, white collar, and rusty red waistcoat,

the stonechat is of a cheery and vivacious disposition. Perched pertly on the prickly gorse, he scolds the passer-by in the most energetic way, and at the very top of his little voice. As he " warns you off " thus, he flaps his wings and twirls his tail round and round, evidently to lend weight to his wrath. Meanwhile, his dowdier mate quietly guards her four or five turquoise treasures hidden securely in the protecting shelter of the gorse. The beautiful red-backed shrike, or " flusher," often spends his summer visit on the

South Downs. There sits the male, sentinel-like, on the highest spray of a hawthorn, his pale grey head sunk in on his ruddy shoulders. His black highwayman's mask over his eyes betrays his character. Every five minutes or so he darts from his look-out post on to some unsuspecting insect, grub, or lizard, and bears it kicking to the larder, where it is impaled, while yet alive, on a thorn, amongst rows of similar victims, who all give a feeble struggle as the murderer alights with his new capture. Here are grasshoppers, beetles, moths, wasps, caterpillars, lizards, and even baby unfledged birds—all neatly trans-

fixed. One can imagine Mrs. Shrike saying to her spouse, "Now that the children have all hatched, my dear, I should like some tender grubs and flies from the larder!" And away he goes to bring back the desired food—home-killed and quite fresh! Mr. Shrike has no use whatever for trespassers—human or otherwise—and he pours out a perfect torrent of abuse in a harsh "Chack, chack, chack!" He twists and flourishes his black-and-white tail round and round in regular circles, and works himself up

into a tremendous rage. Bold Reynard kennels amongst the furze, and one sometimes has the luck to steal upon him unawares as he suns himself stretched out like a dog, or snaps angrily at the flies (or fleas!). But he is usually up and stealing cunningly away before one has time to notice him. His strong scent is often discernible.

A magnificent view can be obtained from the Downs on a clear day, and it is pleasant to rest awhile and eat your lunch on some point where you can obtain an uninterrupted view of the surrounding country. The

Sussex scenery is quite distinct from any other. How beautiful are these sweeping hillsides and peaceful valleys, where the little grey farmsteads nestle, their roofs overgrown with a picturesque yellowish lichen! The narrow grey roads wind in and out, and the Downs slope gently down to them. One can never tire of this kind of scenery. Perhaps no one has done greater justice to them than Gilbert White, who remarks that, "Though I have travelled the Sussex Downs upwards of thirty years, yet I still investigate that chain of majestic mountains with fresh admiration year by year, and think that I see new beauties every time I traverse it."

Large white scars, where the chalk has come to the surface, are conspicuous over the green carpet, as are the narrow sheep-tracks and bridle-paths.

At one favoured spot, beneath one's feet, as it were, lies a broad plain, while away to the right and left rise the hills. The sun shines brightly on the fields of "cocked" corn, and on the sulphur-tracts of wild mustard. Here and there, on the Hampshire side, may be seen long stretches of heather, and straggling pine and birch woods. One may notice also, here, how thickly forested the countryside is—chiefly composed of oak or pine. Sussex is undoubtedly a favoured habitat of the good old English oak. The beautiful wraithed forms of silver birch—"The Lady of the Woods"—are also abundant. At another point may be seen the remainder of the chalk ridge stretching far away down to the sea—a vast glittering expanse where the smooth ripples, gleaming in the sun, may be faintly discerned. The rich, cool breezes blow in straight from the salt sea and send thrills of new life through the observer. Ah! the Downs are

indeed lovable! May they long remain beautiful and free from the disfiguring hand of cultivation!

As the clouds float past serenely in the bluest of skies they cast great shadows that sweep across hill and dale.

CHAPTER VII

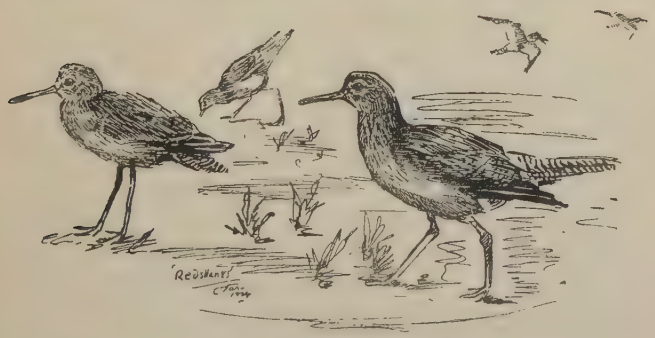
BIRD-LIFE ON THE MUD-FLATS

IF one is desirous of observing the habits of wading birds, there are few places more apt than a stretch of mud-flats—the nearer the sea the better, and if possible in such a position that they will be covered at high tide. In such places one will often find "saltings" or reclaimed marshland. These saltings consist of stretches of marine herbage, such as sea-aster, sea-blite, and others, that become covered by the water at high tide. Amongst this herbage countless small molluscs, crustaceans, and amphipods are stranded, and thus the saltings offer delightful prospects for the gulls and waders.

There are few wild birds, as a class, that are so fascinating to watch as the waders. Their movements are graceful and pretty, and their cheery piping notes are peculiar to the race. They do not favour a scenery of tree and fern, bright with the hues of varied flowers, nor do they esteem a grand setting of mountain and wooded valley (with the exception of the curlew and the plovers). But it is on the bare bleak stretches of treacherous mud, intersected here and there with dykes in which the crabs scuttle and fight, and through which the brown eels occasionally slither and wriggle, that the mellow piping notes of redshank, dunlin, and ringed plover may always be heard. To my mind there are no bird-notes so

expressive of the wild freedom that they possess and so characteristic of their surroundings.

In early autumn these flats are clothed with the elegant bluish-mauve florets of the sea-aster, enriched by the grey papery leaves of the sea-blite and other marine herbage. The dyke fields beyond are shrouded in dark yellow grass and tufted flag, with here and there dense clumps of reeds and rushes. It is here when the snow covers the uncertain ground in white sheets that the harsh grating "Scape, scape!" of the snipe may be heard as he rises with that curious zig-



zag flight, almost beneath one's foot. The snipe is a very close "sitter" when in danger, and he doesn't take to his wings until you practically tread upon his crouching form. Even then it almost seems to be a broken tuft of flag that takes flight, so cleverly does he blend himself with the herbage.

It is amongst these tangled archways of rushes that the reed-bunting may often be flushed—silently flitting out from the undergrowth, sometimes with a querulous "cheep"—to disappear 'mid another tuft further on. The cock is strikingly handsome, as he

perches on a swaying stem of the great reed. He cocks his velvet black head knowingly on one side, and then begins to preen his mottled back. He possesses a spotless white collar round his neck, and a white moustachial stripe. His buff breast is streaked with brown, and his underparts are white. The female is all more or less rusty brown all over, her head being brown instead of black, while her collar is buff. Another common bird to be met with here is

the rock pipit. He is a much greyer or darker bird than the other commoner pipits.

But by far the most entertaining feathered folk here are to be found on the actual mud-flats and saltings. When watching these watchful and shy little people, great caution has to be used in order that you may not be visible to them. For the population of the flats have very well-organized police in the shape of the redshanks, and it will not be long before you are acquainted with this fact. Merely a slight movement of the grass upon the top of the sea-wall, behind which you ensconce yourself, will be the signal for a perfect volley of yodling cries—"Tu-hu! tu-hu! tu-hu! Teuk-teuk!" Presently the redshanks will be flying

frenziedly around you, and yelping out these reproachful cries, thus giving warning of the presence of an intruder to every creature in the vicinity. These redshanks, clad in a modest livery of greyish-brown and white, and with brilliant orange legs, form the most efficient feathered sentinels that I know of. Jays and magpies are unobservant fools when compared to them. Scattered about in small flocks all over the flats, the redshanks seem untiringly on the look-out for enemies. I think that they are by far the hardest birds to approach, with the possible exception of the heron and curlew. They almost seem to be gifted with a supernatural power of watchfulness and, conceal yourself never so carefully, the chances are that one at least will discover you. Once your secret is out, they will flash past with their gleaming white-edged wings, and will fly round and round, crying out as plainly as possible, "Fly! Fly! Here he is, the sneaking brute! Fly for your lives!" And, needless to say, none of the feathered folk neglect their warning. It will be seen from this that it behoves one to respect the redshank's efficiency as a watchman, and keep him in mind accordingly. These birds have very pretty movements when seen at close quarters, and well repay trouble and patience spent in trying to obtain a good view of them. They run about lightly over the mud, dabbling their long orange black-tipped bills in the ooze in search of minute crustaceans, etc. One or two are invariably "on guard," and it is thus that so careful a look-out is kept up. They usually take short runs for a few paces, and then stop to jerk their bodies up and down on their thin legs, looking exactly as if those appendages were hinged to them. Periodically they

stop to preen their plumage, and stretch a dainty wing along an orange leg before starting on again. When in flight, the white secondaries to the wings and the black-barred white tail are very conspicuous and useful points in identification.

Consorting with the redshanks are usually to be found ringed plover or ringed "dotterel," as they are often called. These, in some ways, are the most attractive little feathered denizens of the flats. They run about in small groups, their little orange

legs scuttling so fast as to be almost invisible. When the ringed plover's back is turned to you, he is practically lost to view, but so soon as his breast is visible, he shines up in the sun against the muddy background. He is prettily marked—pure white breast and underparts, with a black gorget. The wings and back are brown and also the head, which has a white line over the eyes, and a white forehead surmounted with a band of black. The area round the eyes is black. The ringed plover always looks as if he is feeling cold,

and thus assumes a hunched-up appearance. He has a quaint manner with him, too, in the way that he takes a short run, and then stops, then runs on again, stops, and so on. The ringed plover's language consists of a series of little pipings—" Toolie, toolie, toolie "—which are quite unmistakable. This species is one of the commonest of the waders. He is to be met with on most of our shores during the winter.

When one sees the ringed plover for the first time, stuffed and away from his natural surroundings, he will be considered a conspicuously coloured bird. But in reality there are few birds that so completely harmonize with the shingle-clad beaches or mud-flats that they inhabit. In fact, so well does the plumage of the ringed plover blend with his surroundings, that, except when the bird is on the move, he becomes practically invisible. The clever little fellow seems to be quite aware of this, and always seems reluctant to take flight, when it can thus lose itself amongst its surroundings. When he is forced to use his wings, the ringed plover practically always does the same thing—that is, he first of all flies straight away, and then he makes a complete detour and flies right round you, landing some little way behind. Why he indulges in this quaint little manœuvre, I cannot say, but he invariably does.

Associating with the ringed plovers, often in large numbers, may usually be seen the dunlins. These sprightly little birds dart nimbly about amongst the herbage. The small waders, as a whole, are often rather hard to distinguish at a distance. If it is possible to obtain a good view of the dunlin through strong field-glasses, it will probably be noticed that the tip of the bill is curved slightly downwards. But,

of course, this is by no means an easy method of identification. I should say that his marvellous wing feats are rather distinctive. In summer the dunlin is beautifully coloured. His mottled chestnut back and wings, and the black blotch of the lower breast, mark him out at once, but in winter he relapses into the ambiguous greyish mantle and white underparts that so many of the smaller waders assume. But the wing performances of the dunlins are really admirable, and they form one of those beauties of Nature that surpass all powers of description. I think that a fairly good idea of these performances may be obtained if they

are likened to those of a flock of starlings when they are in a playful mood. The dunlin's flight, however, has an additional grace (in winter) in that the greyish plumage and white underparts flash in the sun like silver when they turn and twist and dive through the air. Now one has the impression of a flash of silvery lightning as they wheel round, white underparts gleaming, and now they melt into invisibility as their grey backs seem to be lost in the grey surroundings.

The dunlins are companionable little birds, and they show a warm affection for one another. I once had the pleasure of observing an instance of this. There were two of these dainty little birds on the ground quite close to me. Soon I perceived that one

of them had a broken leg, and it hopped piteously about, carrying its little thin leg stretched out stiffly behind it. There is something very pathetic about a disabled wild animal or bird. Too often one sees them neglected, if not worried to death, by their fellow-creatures. It is all the more sad when one reflects that probably the little sufferer owes its misfortune to a charge of shot from some merciless bird slaughterer. The victim, in nine cases out of ten, is a harmless and beautiful creature, demanding only the right to live.

But here I came across one of those not uncommon instances of bird friendship, for the crippled one had a staunch little companion by its side, who had deliberately left the flock for the sake of its friend. This faithful little being was perfectly well and healthy itself, running about and dabbling its bill in the mud for insects and crustaceans, whilst its crippled mate hopped awkwardly after it.

There are many people who deny the "lower" beasts the right of true love and friendship, and attribute all such appearances to "instinct." But in a case like this, what would be the point of instinct guiding a bird to the side of a disabled companion, when it might have remained in the more profitable society of the flock ?

There are usually to be seen a few sanderlings about on the flats in winter. Much of the same size as the dunlin, the sanderling has a noticeably shorter bill. He is more robust, too. In summer this species is mottled brown and grey, while in winter—the only season when I have seen sanderlings alive—they are ghostly white with mottled pearly grey backs and greyish caps on the crown of the head. When seen in

the distance in a good light, or when in flight, they look very white indeed, though when on the ground they quickly merge into the landscape. In a mixed flock of sanderlings and dunlins, the former can readily be picked out by this pale colouring.

It is the delightful piping chorus of the ringed plovers, dunlins, sanderlings, and redshanks, that render the mud-flats so cheerful a place on a sunny winter's morning. The prettiest of all is the ringed plover's plaintive little "Toolie, toolie, toolie." But perhaps my opinion is an unfair one, as the ringed plover is an old favourite of mine.

Far out near the water-line may usually be seen a few stately curlews. The curlew, or "king of the waders," is one of the most interesting birds that I know. This is chiefly because, like the redshank, he is an exceedingly watchful fellow, and thus very hard to approach. He is so wary, in fact, that he usually remains as far out in the open as is possible, and here he stalks about with a serious and dignified air, plunging his long curved bill into the mud and shallow water in search of shrimps, worms, molluscs, etc. Or else you may see him gracefully preening his pale mottled plumage. He is handsomely garbed in pale brown with chocolate streaks and bars, and this colouring is wonderfully protective.

Very often the curlews spend the day in the adjoining dyke-fields, where they wander about in search of grubs in the long grass. The large brown birds seem to become completely lost under cover of the dank grasses, and occasionally an enquiring head, with its almost grotesque long bill, peeps up.

The nearest view that I have ever obtained of this interesting bird occurred in a damp, boggy meadow

adjoining the flats. It was on a miserable and "drizzling" morning, and I had spent a great deal of time in trying to approach the curlews to quarters close enough to enable me to make a sketch of them in detail. They seemed to be supernaturally wary that morning, which was all the more exasperating on account of the weather. Eventually, while resting under cover of the sea-wall, I caught sight of two curlews flapping with their quick wing-beats towards this meadow. The long bill is very noticeable during flight, by the way. As soon as they had passed safely over, I fixed my glasses on the field, and there

I soon perceived several curlews moving about in the grass. About one hundred yards ahead from where I was, a low, bank-like wall raised itself from the ground, and once successfully concealed behind that wall, it would be possible for me to obtain an unimpeded view of them through my glasses. I eventually accomplished this, by dint of crawling on hands and knees over the dripping grass. I was rewarded by having these shy birds within a few yards of me, and my pleasure was only interrupted by the presence of a powerful-looking bull in the same field, which was slowly, but surely, feeding towards me!

The curlews, unconscious of my presence, also gradually drifted towards me. They have an almost hurried gait on the ground, as if they were anxious to cover as much of the field as possible before being disturbed. Their pale mottled feathers show up most effectively in a good light. The neck is jerked backwards and forwards as the bird walks. At the sound of a distant gunshot the curlews instantly became motionless, stretching their heads up and listening anxiously. Overhead sounded the melancholy "Curl-ee! curl-ee! curl-ee!" as several more came flying in from the flats. This beautiful mellow call of the curlew is universally considered to be one of the most musical and attractive of natural sounds.

I was lucky enough to see two whimbrels on these flats one day. They are as lesser curlews in appearance, but with darker plumage and broad stripes on the crown of the head. The call note is totally distinct, and can only be described as a "tittering." Hence one of the local names for the whimbrel is the "Titterel!"

No account of the mud-flats would be complete without mention of the lordly heron. There are very few places where one has a better chance of watching herons than on the flats. He stalks about in a serious manner quite distinct from the merry dancing steps of the little waders, though there are occasions and circumstances when even the heron loses all his dignity and performs the most extraordinary antics. Normally, however, he gives the impression of a grave old man amongst a crowd of merry children. No bird has so deceptive an appearance. As one usually sees him, standing rather dejectedly, with his long neck sunk in on his shoulders, and with his predominating sad

grey colour, he would seem to be of a melancholy and thoughtful disposition, and yet the heron is no less happy than the liveliest titmouse that acrobats all over the branches in search of aphides. He might likewise pass for the very incarnation of boredom, and yet no bird is so watchful or patient as he. When the heron moves on the ground he takes long strides, and sways his neck backwards and forwards like a huge curlew. No dagger was ever used so accurately as that keenly pointed beak of his, and everything small—furred and feathered and scaled—is liable to

become impaled upon it, shaken or whacked to death, and finally swallowed at one gulp. In some cases you can watch the bulge travelling down the long serpentine neck. Eels seem to be considered a particular dainty, though there are instances on record where the eel has been one too many for the heron, and, by winding itself tightly around his throat, has eventually strangled him.

But, as I have said, there are times when even the pensive heron loses all sense of dignity and self-respect, and he often has his moments of the wildest excite-

ment. One day I witnessed a couple of them love-making. It may seem hard to imagine a heron flirting as freely and unrestrainedly as any London sparrow, and yet this was exactly what was taking place here, in a secluded portion of the dyke-fields. The lady, in this particular instance, was of a very coy disposition, and kept her enamoured lover at a respectful distance. The excited male paraded about in front of her, with proudly arched neck and distended upright crest. He also puffed up the beautiful blue-grey feathers on his back, and certainly looked very handsome. But, as is invariably the case, the female affected to take no notice whatever. So after wasting ten minutes or so in this useless performance, the male heron resorted to sterner methods, and chased her round and round, uttering low hoarse croaks the while—no doubt very flattering remarks in heron language. Whenever the lady heron stopped, the cock would do likewise, and commence his proud exhibition all over again, until she became apparently so utterly bored that she had to take a little more exercise, and so forth ! Both of them, however, were so absorbed in one another that they literally threw discretion to the winds, and flapped about all over the place, taking absolutely no notice whatever of me, though I sat on a side of the " wall " in full view. It was quite astonishing how quickly they travelled about—now being at the farther end of the field—now but one hundred yards from me. Their splendid wing feats were a sight to see. I could always tell when they were going to take flight, as they humped up their shoulders and gave one or two jumps before finally launching themselves into the air on their broad wings. Four other herons near by interested

me also, as they were continually preening their feathers, and thus going through a variety of attitudes which were interesting to sketch. The usual cry of " Jack Hern " is a rather harsh scream, often likened to " Frank ! Frank !" When alarmed at very close quarters, which is a very rare occurrence, the heron

THE Heron's Toilet

flies away at a very brisk pace, and makes a humorous effort to " zigzag " like a snipe.

The noisiest and most numerous feathered denizens of the mud-flats are undoubtedly the gulls. From the greater black-back to the black-headed gull, they are well represented there. But the gulls, as a race, are so interesting and universally popular that I shall reserve them a chapter of their own.

CHAPTER VIII

BIRD-NOTES ON THE ORWELL ESTUARY

IN the summer of 1922 I had the good fortune to be staying in the neighbourhood of the estuary of the River Orwell in Suffolk. This chapter deals with a few notes collected whilst watching the various species of wild fowl to be met with on the mud-flats and saltings of Levington Creek.

Here, as on the flats previously described, there is a long and fairly high sea-wall, separating the mud from the meadows behind. By means of taking cautious cover behind this wall, it is possible to spend delightful hours in watching the movements of the feathered folk beyond. The view over this wall especially during the early morning when the masses of marine herbage on the saltings are tinted with the "roseate hues of early dawn," and the countless waders and gulls whistle, scream, cackle, and pipe—passes all powers of description. This view, moreover, is enhanced by the broad and peaceful estuary of the river beyond, while in the distance the spires and ship-yards of Harwich, and the tops of the masts of the destroyers lying there at anchor, are suffused with the pale glow. But it is with the birds themselves—restless sprites of the place—that we are now concerned. From these grey stretches of ooze sounds a medley of piping and wailing cries—riding, as it were, on "the wings of the wind"—and the glint and

flash of many pinions may be seen as the sea-birds come floating in like huge flakes of snow to feed on the countless numbers of marine creatures left by the tide on the saltings and flats. Mingled with the snow-flakes are the darker and more lively forms of curlew, redshank, and others. Soon the flats are literally covered with them, and their cheery voices make the welkin ring.

I have seldom seen such a variety of birds all feeding together as on these Levington flats. Far out on the water-line, as usual, stood a few herons, like solemn, old, hunchbacked men! Ever and anon,

however, one would unfold his splendid wings and flap slowly towards another favourite fishing-ground. The harsh cry of these patient anglers often pierced the never-ending symphony of the little "hen-footed" fowl—the ringed plovers, sanderlings, and redshank. Amongst these tall scraggy herons the graceful forms of the dun curlews could be seen, either feeding or standing about contentedly on one pale blue leg, the other snugly tucked up beneath the white under-feathers. There were many of these curlews in the fields behind, and their doleful and plaintive, wailing cries could be heard clearly, quivering on the night

air, from my bedroom window. When he is about to land, the curlew circles down, with his long legs stretched downwards, the claws spread, turning his body in graceful curves as he comes. The curlews seemed to prefer the mud-flats to the saltings. The doleful call is often preceded by a curious guttural note.

The redshanks were well represented here, and the air around resounded with their yodling flute-like cries, as they flew all over the flats in small flocks, while " strings " of beautiful green plover, or lap-

wings, embellished the landscape with their soft, green, bronze-tinted backs and snowy breasts with black gorgets. Likewise the handsome pied oyster-catchers, with blood-red bills and pink legs, added greatly to the picturesque effect. As a matter of fact, though, at the season when I was there, there were not many of these oyster-catchers about, probably on account of the nesting season being not yet over. Trembling " skeins " of wild duck periodically trailed along overhead—chiefly comprised of mallard and widgeon, with occasional sheldrakes.

The dainty little ringed plovers made their short little runs from place to place, stopping abruptly whenever any delicacy was spied in the ooze.

The saltings, however, were by far the most favoured resort of all the small wading folk—especially dunlin and sanderling. Their small grey forms could be seen with difficulty, bobbing about merrily amongst the marine herbage.

Of course, flocks of gulls were dotted abundantly all over the mud-flats, the handsome but criminal greater black-back's hoarse bark piercing the cackling and screaming chorus of the lesser gulls.

There are few birds that can make such a variety of weird noises as the gulls!

The saltings and mud-flats nearest to the water were honoured (certainly not graced) by the dark and clumsy forms of the cormorants and shags. There they sat, turning and twisting their long serpentine necks, or else with the aforesaid necks sunk in on the shoulders in repose, and the long hooked bill pointed upwards at an angle of about forty-five degrees.

Here they conversed together in their strange rattling note, and sometimes, on a sunny day, you

would perhaps see rows of cormorants sitting along the edge of the mud-flats, with their huge wings spread out to dry, like so many scarecrows. The wings are often " quivered " when in this position—I suppose to shake off the drops of water. Frequently squabbles would ensue, carried on with much twisting and turning of the neck, and with growling vociferations.

When the cormorant flies, he usually remains close to the surface of the water, with his long neck outstretched like a swan. Sometimes, however, the cormorants fly quite high up in the air. Down the River Stour, one day, I saw huge flocks of these birds peopling the mud-flats. In one of these flocks we counted at least thirty-seven of them. They were in the prime of their summer plumage, with handsome white crest feathers and brilliant white blotches on the thighs. They frequently perched, in company with the greater black-backed gulls, on the floating spar-buoys in the river. As I watched a large flock of these cormorants flying high up in the air, they reminded me irresistibly of colossal long-necked rooks.

Once I discerned some small wading birds with fairly long bills that were darting about on the mud-flats far out at the tide-line. They had dark rings round their otherwise white breasts and dark brown backs. They were certainly not ringed plover, so I am inclined to think that they must have been turnstones.

The kingfisher in his gorgeous azure blue and emerald green plumage is often encountered here. There is usually one, at least, to be seen shooting over the tops of the rushes behind the sea-wall. Some-

times one receives an orange-brown effect, as he flies towards you, with his warm brown breast gleaming in the sun. His long-drawn piping note is unmistakable.

I was shown a nesting haunt of the sheldrake—a series of holes, like rabbit burrows, in a sandy bank. In fact, the sheldrake usually appropriates some disused rabbit burrow. Unfortunately, the nesting season was over by the time that I was in the vicinity, and I saw none of those handsome ducks there at all.

CHAPTER IX

SOME NOTES ON ROOKS

THE common rook (*Corvus frugilegus*) is the most interesting and best-known of the intelligent family of the Corvidæ to which he belongs. At least, he is well-known by sight, though many of his habits are yet to be observed. No bird, perhaps, offers such rich material for study as this sable companion of our country walks, and surely no other species is so arrestingly interesting to watch. He is a more imposing bird, I think, than his cousin the carrion crow, and his movements are not so furtive, and are more dignified. A certain amount of this last is perhaps due to the long feathers which hang down over his flanks, and which thus tend to give him a plumper appearance, becoming to his self-important " side-to-side " gait. A party of rooks, as they waddle about seriously, intent upon foraging, gives one the impression of aged philosophers rather than birds. Seen in the hand, moreover, the bare region at the base of the bill and the small glittering dark eyes combine to give the bird that appearance of wisdom and intelligence that is quite in keeping with his character. However, enough for appearances!

The few chief observations that I have made on rooks took place, for the most part, in the month of March, 1922. I had better state in advance that I sincerely hope that anyone who considers himself

a savant on the subject of rooks will disdain to read this very incomplete summary of the notes that I made on the nesting habits of this most interesting and engaging bird. I am afraid that they cover only a very small portion of the rook's life. At any rate, there is one thing that is quite clear to me in watching the inmates of a rookery, and that is, that the observer can never complain of boredom or monotony. There is always something of interest occurring, and very often extremely humorous episodes take place.

One fact that has been universally noticed about rooks, and incidentally always seems to be out of place with their normal degree of intelligence, is their wild and fevered excitement on any unusually fine and warm day in the winter months. Whenever one of those sudden bright and calm days occurs, even in mid-winter, it is sure to be heralded by the wildest enthusiasm on the part of the rooks. There is a general rush to the rookery, and nests are patched up and twigs collected with all the joyous outcry of the nesting season proper. It is quite clear that the rooks really and sincerely believe that the spring has come once more, and hence all this excitement. I, personally, think that it is one of the pleasantest and most thrilling of the voices of spring, that melodious outburst from the tops of the high elms, and the flapping of the black pinions through the branches. One of the first things that attracts one's attention at the rookery is the extraordinary variety of notes, pitched in practically every key, that proceed from the busy community. This impression is enhanced at the arrival of the nestlings, some of whose notes are hardly avian.

It is interesting to observe the way in which the rooks select twigs for repairing their nests.

> "Soothed by the genial warmth, the cawing rook
> Anticipates the spring, selects her mate,
> Haunts her tall nests, and with sedulous care
> Repairs her wicker eyrie, tempest torn."

They come fluttering down from branch to branch until they discover some twig that meets with their approval. Seizing the twig in his powerful bill, the rook wrenches it in every direction, meanwhile bending the neck in all sorts of amazing attitudes in the endeavour to snap it off. This, incidentally, serves to illustrate the remarkable formation of the vertebræ in a bird's neck that enables it to turn its head in practically any direction. If this wrenching, alone, of the twig did not meet with the desired effect, the bird would seize the twig securely in his bill, and then hoist himself into the air, thus throwing all his weight into the work. Also he would hop from branch to branch, pulling hard all the while. Eventually, in most cases, the twig would snap off, and away would fly the successful one to his mate at the nest, who has meanwhile been busily placing the twigs in position, and casting out the rotten ones for the reception of the fresh arrivals. Sometimes the male rook would perch upon the edge of the nest, and pick off select twigs from the branches overhead and around, handing them down gravely to his mate.

Of course, there are always a few of the less industrious sort, who prefer to hunt furtively about for unguarded nests from which they might plunder the twigs. This fraternity was always amusing to watch, as they invariably would come sidling down on to a branch fairly close to an empty nest. Here,

for a short time, they would glance nervously about in order to see that nobody else was watching them. Then they would quickly swoop down upon the nest, and hastily tug out a twig from its interwoven surroundings. Sometimes an unlucky moment would occur, when one of the owners of the said nest returned, and a scuffle would ensue, in which all the neighbours around would join, lending their voices, if not their physical aid ! The wretched thief, pecked at and scolded vehemently from every side, would fly wildly towards his own abode, pursued by the irate owners of the nest which he had been plundering. But in many cases the plunderer would be successful in his undertaking, and would safely escape with his capture before the owners arrived. The particularly rash thieves would sometimes actually steal twigs from under the very eye of the owner ! The sensible and experienced rooks would usually never both be absent from the nest at the same time, but would invariably take it in turns to be left on guard. At various intervals the whole feathered community would rise on soaring wings right up above the tree-tops, and circle, from the sheer joy of living, round and round with loud and joyous " caws." After a brief interval passed thus, the birds would once more drop quietly on to their nests. On these occasions some rooks remained in the vicinity of the nests, but these would join in the hoarse chorus, throwing forward their bodies, and raising and spreading wings and tails as they did so.

I noticed with much interest the various and, in some cases, peculiar objects brought back to the nest by the foraging rooks. One, for instance, arrived with a circular object in his bill—I think that it must

have been some kind of root, or perhaps it was a young potato. After holding it in his bill for a short space, he hopped on to a larger branch, and, placing it securely between his claws, pecked large pieces out of it with evident satisfaction. In another case, a rook arrived at his nest bearing with him in his bill a fairly large paper bag! He seemed most amusingly proud of this fine trophy, and exhibited it with great pride to his equally interested mate. Incidentally it excited great envy and curiosity in the breasts of their neighbours also, but the paper bag was jealously guarded from all inspection! After regarding it lovingly for a while, the lady rook wove it neatly into the lining of the nest, with many chuckling little soft "caws."

The harmony of the rookery was often broken by fights—some merely in fun, others in grim earnest. In the latter case, the two combatants somehow entangled their claws, with the result that one hung head downwards, flapping his wings frenziedly, whilst the other screamed at the top of his voice and assisted the awkwardness of the situation by making convulsive jumps! Finally, the former managed somehow to disentangle himself, and fell headlong, to recover himself somewhere near the ground.

During the whole period that I was watching the rookery, there was a steady flow of foraging rooks departing and returning with twigs and food for their mates. Some, also, were perched on outstanding branches of the nesting area, and these acted as very efficient sentinels. Notice of any enemy approaching the rookery was the signal for general alarm, in which the whole community would mount up on

flapping pinions above the nests, joining in hoarse outcry against the intruder.

There were certain nests that appeared to be centres of rook "gossip." At least, many of the rooks who had evidently finished repairing their own nests used to assemble at these, and converse with one another like so many old village matrons!

The actual personal habits of the rooks themselves were many of them singularly interesting and amusing. There was one nest, in particular, that was tenanted by an affectionate couple who were very fussy with regard to visitors—especially the lady. If another rook, however peaceably inclined, came within a few feet of their nest, the female would "square up" with evident indignation. Her husband, on the other hand, was an unusually mild and placid gentleman, who usually spent his leisure hours perched on the branch overhead when not away foraging. On occasions when the attitude of his mate towards visitors became menacing, he used to pluck gently at her tail, as much as to say, "There, there! my dear, do calm yourself, for goodness' sake!"

Rooks are affectionate birds, and the gentle way in which a pair of them used to treat one another was very pretty to watch. When the cock-bird arrived from a foraging expedition, his throat pouch was usually inflated with choice morsels, and as soon as he arrived at the nest, he used to open the mandibles of his beak wide, and the hen would insert her beak, like a young bird, and would thus procure the contents of the pouch. After disposing of her meal, the hen would seize her mate's beak in hers, and together they would "toy" with one another's beaks, and

caress one another in a way that was very engaging to watch.

On and off throughout the day, they would take it in turns to fetch sticks and forage. I once saw the male rook of this couple break off a large forked twig from a neighbouring branch. He was now in rather a dilemma, as, of course, the fork repeatedly caught in the surrounding twigs and branches. The patient way in which, by means of careful turning and twisting, he managed to extricate it, was admirable to watch, and quite in keeping with his intelligent reputation.

Some individuals, for want of better occupation, spent a deal of time in love-display before their mates, who, needless to say, took not the slightest interest in these affairs. The courting birds would spread their tails into gorgeous fans, quiver, and elevate their wings, and utter excited, jerky "caws." In fact, at times they became so excited that they would commence to dance up and down on their perches, bowing continually before the objects of their affections the while. Once I saw two rooks evidently undergoing a "bowing" match.

As I have previously said, the variety of notes uttered by rooks is quite amazing. They stretched from the well-known "caw" to a harsh, throaty grunt. One rook possessed an exceedingly treble voice, one might almost describe it as a "pipe." There was another, too, whose voice resembled a carrion crow's so remarkably well that it completely deceived me several times.

I once witnessed a very amusing little episode in rook domestic life that might well be entitled "The Eternal Triangle." A male rook was sitting upon a

branch above a nest, whose two occupants were "at home." Presently the female of the married couple below, who had hitherto been sitting peacefully on the nest, flew up on to the branch where the stranger was, and sat down beside him. Meanwhile her poor husband became very uneasy about this pointed behaviour on the part of his wife, and presently, evidently considering that she was indulging in too long a chat with the stranger, he called her gently with a few soft and appealing "caws." I am sorry to say, however, that Madam Rook was so enthralled by the interesting conversation of her new friend that she quite failed to hear the low voice of her loving mate, and so after a while he quietly seized the tip of her tail in his bill and pulled her gently but forcibly down into the nest again, which done, he caressed her in a pathetically affectionate way, gently reminding her that she had evidently mistaken the stranger for himself.

I think that perhaps the most interesting thing, as a whole, that I observed during my study of this rookery was the permanent removal of the feathers at the base of the bill of the young rook. In most of the ornithological works that I have read which have touched upon this subject, there seems to have been no definite conclusion arrived at as to how the feathers actually disappear. But if I may be permitted to offer a theory from my own observation of the yearling rooks, I should state that the moult is assisted by the birds rubbing the feathers off against the branches. I have observed several cases in which the young rooks were distinctly seen scrubbing their throats and the sides of the bill hard against the branches. Evidently an irritation is set up in these

regions, which causes the birds to rub the feathers off. But, of course, this may only have been coincidence, and therefore of no consequence at all.

Unfortunately, circumstances prevented me from continuing my observations throughout the actual nesting season. However, if this short account has merely served to point out how exceedingly interesting a few hours spent with the rooks may prove, it has quite fulfilled its purpose.

I forgot to mention that most of the substance brought back from the fields by the foraging rooks, as far as I was able to see through my glasses, consisted of various kinds of grubs.

CHAPTER X

GULLS

I SUPPOSE that gulls, as a family, are the most universally well known of birds. There are very few people who do not know a " sea-gull " by sight. And yet it is strange how so many people never notice that there are at least three distinct kinds of gulls to be met with around all our coasts, and very often four.

The three gulls that will inevitably be encountered are the herring, common, and black-headed gulls. The fourth species that is usually fairly well represented, more especially during the winter, is the magnificent greater black-backed gull. On rocky coasts kittiwake and the lesser black-backed gull also will be seen.

Strictly speaking, one cannot regard the black-headed gull as a " sea-bird," a term properly applied to a species that nests on sea-girt islands, or at least on cliffs in the vicinity of the sea. Perhaps the black-headed gull is gradually evolving from a sea-gull into an inland species, in much the same way as the green woodpecker spends much of his time on the ground amongst the ant-hills. At any rate, whether this be so or not, the black-headed gull seems to prefer the inland lakes and marshes and the rushy borders of rivers to the sea, and is often met with at remarkable distances from the sea. I have repeatedly

observed them on the Trent near Repton, which is only about seven miles from Derby, and therefore practically in the centre of England. A well-known nesting haunt of this gull is at Scoulton Mere in Norfolk.

The black-headed gull (*Larus ridibundus*), or the "Laughing Gull," is by far the commonest of our British gulls. It is also the smallest and neatest of the common species. In summer it can readily be distinguished by the dark brown hood; but in winter this is discarded, and then identification at a distance

BLACK-HEADED GULL.

is not so easy. However, once the outstanding features of the bird are known, there ought to be no difficulty in picking it out from amongst others. Its mantle and wings are of a very beautiful pearly grey —so pale that in bright sunlight at a distance they seem almost white. The black primaries lack the white "mirrors" that are so conspicuous in the herring and common gulls. Perhaps the most distinctive features are the coral-red bill and legs, and, in winter, a black spot over the ear-coverts. The note of the "black-head" is quite unmistakable.

It consists of a harsh, guttural scream, reminiscent of the " caw " of the carrion crow, but far less savage, and decidedly more pleasant to the ear. It is difficult to express in words, but perhaps " scaurr-rr " will give some impression of it. Why it is called " Laughing Gull " I fail to understand, as I should have thought that this name was more deserved by the common gull.

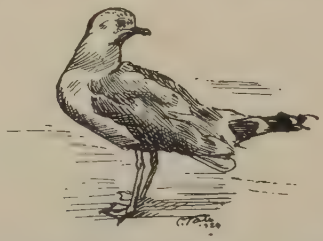
Black-headed gulls are very graceful on the wing, and when a flock of them float along over the sea on outspread, motionless wings, gently swaying from side to side in the breeze, they produce a very pleasing effect. When they settle on the water, they ride carelessly over the smaller waves, but take reluctant flight when the curling crest of a large breaker rears itself threateningly over them. Few birds seem so obviously happy as the gulls, as they mount gently up and down on the waves. In stormy weather, as the wild sea restlessly heaves her troubled bosom against the impassive rocks and break-waters, sending showers of salt spray over the face of the cliffs, and tossing the tangled seaweed in dripping slippery heaps upon the beach, the weird cry of the gulls, as they fearlessly flit over the roaring waves, is one of the most effective and fascinating sounds in Nature. As their white forms hover over the " raging tumult of angry waters," they seem to be ghostly sprites of the ocean, and their wailing human-like cries remind one of those realistic lines:

" The sea-mew's lonely laughter
Flits down the flowing wave:
The green scarts follow after
The surge where cross-tides rave."

FIONA MACLEOD.

However, we are wandering from our friend the black-headed gull. He has made London his head-quarters during the winter months; and the Round Pond and Serpentine in Kensington Gardens, St. James's Park, and the Thames itself are inhabited by vast numbers of black-headed, common, and herring gulls. Here all instinctive fear of man vanishes, and there are few sights so charming as the chattering flocks of these gulls eagerly and cleverly snatching the food from one's fingers as they pass in mid-flight.

The common gull (*Larus canus*) is also a frequent visitor to our southern coasts in winter. I do not think that he breeds south of Scotland, but of this



I am not sure. His name of "common" gull is misleading. That title belongs rightly to the last species. Though of much the same size as the black-head, the common gull is noticeably of a more robust appearance. His mantle and wings are of a much bluer-grey also, while the black primaries have broad white "mirrors." In winter his head is streaked with greyish-brown. His bill and legs are of a greenish colour, and his beautiful dark brown eyes have red rims.

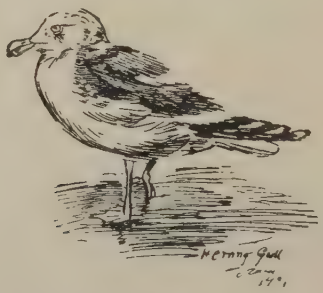
The common gull affects the same important side-to-side waddle as the rook. His bill seems to be shorter in proportion to his head, than in the other species.

Common gulls seem, too, of a rather quarrelsome nature, to judge by the amount of squabbling that goes on in their midst.

When watching birds, one must inevitably be struck by their almost human-like behaviour towards one another. That birds converse with one another as often as we do, indeed, seems to be indubitable. The other day I was especially reminded of this fact by observing the apparent conversation between two common gulls. It was silent, but, from the movements of the two birds, it was quite clear that they were communicating with one another. I was watching a mixed crowd of gulls perched upon a landing-stage in the River Arun, when something alarmed them, and they gradually took flight. At last there were but two common gulls left, and the one nearest to the source of danger became very uneasy and restless. Instead of flying away as the others had done, however, he contented himself with eagerly glancing up and down the river and on all sides. Observing nothing as yet to alarm him, he remained by the side of his mate on the post. Meanwhile his mate also became uneasy. They both looked up and down in a nervous way, then looked at one another, and once again scanning all sides in apprehension, eventually decided to take flight. But their mutual consultation was so evident that it was one of the most interesting sights in Nature that I have witnessed.

The common gull, like the black-headed, is an omnivorous species, despising nothing from carrion to small fish and crustaceans. The birds are frequently to be seen following the plough in company with other gulls and rooks.

The herring gull is a large edition of the common—with this difference, that he possesses a bright yellow bill with an orange spot at the end of the lower mandible and a pair of sharp yellow eyes. His legs and feet, moreover, are flesh colour. His character is rather "shady"! Although certainly very fond of fish and grubs, molluscs and crustaceans, he is also very decidedly partial to eggs of all kinds; and he is by no means above having a succulent young nestling for dinner. He is easy to distinguish on account of his large size, which is only surpassed by the greater



black-back. The herring gull is a handsome and powerfully built bird, and one that is blessed with an amazing variety of notes—ranging from agonized screams to low chuckles. His usual call, however, is a clear-ringing "Kee-ah! Keeah-keeah-keeah!" He can mimic the mewing and wailing of a cat to a nicety; while the piteous screams that he sometimes gives vent to are more expressive of a bird—or even human being—in the direst pain, rather than the outward and visible sign of happiness.

The herring gull waddles in a grave manner, but every now and again he breaks into a shuffling little run that looks most undignified in such a large bird.

Out on the tide-line he may often be seen indulging in that quaintly pretty dance that nearly all the gulls and many of the waders practise. That is to say, he stands still and marks time quickly with his dainty webbed feet in the wet sand, presumably to disturb any small crustaceans or fish that may be lurking there. Most gulls can be credited with being noisy, but the herring gull produces a greater volume and variety of sound than them all. He seems to be periodically seized with spasms in which he must whistle, scream, wail, cackle, and laugh for all he is worth.

In winter the head of the herring gull becomes streaked with grey, more especially about the eyes. This serves to show up the paleness of those orbs, and gives the bird a peculiar and somewhat diabolical expression.

The herring gulls are very fond of molluscs, and one of the commonest sights on a rocky shore is that of these birds searching for winkles and other "shellfish." Having procured one, the gull rises to a height of about twenty feet or more, and, hovering in mid-air, he drops it to the rocks beneath. He thus succeeds in smashing the shell, and the succulent morsel inside is swallowed. I have often watched herring and common gulls engaged in this highly intelligent business for hours at a time.

The herring gull occasionally adopts the highway-man-like habits of his cousins the skuas, and I have repeatedly seen him chasing his weaker brethren with the object of making them drop or disgorge their food. The smaller gull is pursued round and round tirelessly, screaming indignantly the while, until either he drops his food or at length manages to shake off his pursuer. If the food is dropped, the

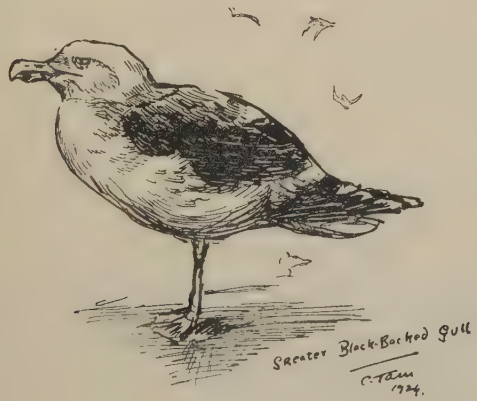
herring gull usually catches the morsel cleverly as it drops. I once saw a herring gull chasing a rook in a similar fashion one morning. The rook succeeded in tiring his pursuer, and later returned with three or four companions, who chased the robber gull from the neighbourhood.

Immature herring gulls are clothed in a plumage of mottled brown, and their tails are barred with brown. At this stage the eyes are dark brown, and the bill flesh-coloured with a black tip. On the whole, the herring gull is a paler bird than the common; his mantle is of a delicate pearly grey.

And now we come to that feathered criminal—the greater black-backed gull (*Larus marinus*). If the character of the herring gull is shady, that of the greater black-back is inky black! Literally nothing comes amiss, in the way of food, to this relentless avian pirate. During the winter this huge gull is well represented along our southern coasts. His nesting stronghold is by preference on some rocky island along the Scottish and Irish coasts. Here the greater black-back is usually given a wide berth by all the other feathered folk, and he is usually of a solitary disposition. This species is by far the handsomest and most imposing of all the gull tribe. From his coal-black mantle to his little cold, glittering red-rimmed yellow eyes, he looks every inch a robber and marauder. In size, he is a colossus when compared with the others, and even the herring gull shrinks into insignificance beside him. A few black-backs always stand out clearly from amongst the rabble of herring, common, and black-headed gulls.

The mantle and wings of the greater black-backed gull, though so jet-black at a distance, are in reality

very dark slate. The secondaries and scapulars are broadly tipped with white, which sets off the beautiful contrast of the black and white of the whole effect. The very powerful, almost hooked bill is yellow with a vermilion splash at the end. The piercing eyes, as I have said previously, are encircled with broad red rims. The features of the bird's face at once betray the predatory disposition. Any lamb that is weakly, or has chanced to stray from its mother, is attacked with a greed worthy of an eagle. This splendid bird



is a worse robber of eggs and young than either crow or raven. But I think that the greater black-backed gull prefers carrion to almost any other fare. The carcass of any dead bird or beast that is brought in with the tide is greedily and quickly devoured. It is owing to this taste that the bird is sometimes called the " corpse-eater."

The usual position in which one sees him on the beach is standing in a rather hunched-up attitude, the head resting on the broad shoulders, and the eyes

half-closed. He is a very shy bird by nature, and seldom approaches nearer than the tide-line. Frequently he perches, on one leg, on some projecting post or breakwater, and here he will remain for hours in much the same sleepy attitude, occasionally turning his head from side to side, ever on the watch for food or danger. After a while he seems to wake up, and stretches his magnificent wings above his head, craning his neck downwards and giving vent to a series of harsh barking cries which are totally unlike any other gull sound. Then, spreading his superb black white-edged wings, he soars up into the blue sky, still uttering the harsh " Graah-graah-graah." It is when on the wing that the greater black-backed gull looks at his best. With a wing-spread of at least five feet from tip to tip, he really is a superb figure of a bird. The black-back flaps along slowly and in a dignified way, occasionally gliding for a few yards at a time. In spite of his voracious habits, the smaller gulls and waders fearlessly consort with him. Apart from his size, the greater black-backed gull can always be distinguished from the lesser by the colour of his legs, which are pinkish-white. The other species has bright yellow legs. The smaller bird also has a much paler slate-coloured back. It is slightly smaller than the herring gull.

One day, whilst I was walking along the beach, a greater black-back rose heavily from the ground, carrying something that dangled from his beak. I approached quickly in order to see what it was, when suddenly the bird dropped the object, and it proved to be a fair-sized eel. Picking this up to look at it, I soon became aware that the big gull was flying round and round me in large circles, yelping

out his fierce challenge the while. He was obviously very much annoyed at my interruption of his meal. I thought that I would see how soon he should dare to pick up the eel again if I walked away, so I left it where it had been dropped.

For quite a long time, and until I was at least one hundred yards away, the gull continued to wheel round and round and to make the most appalling noise. At length he summoned up enough courage to alight at a distance of about one hundred and twenty yards—not far from the tide-line. Here he stood with ruffled plumage watching my movements intently. Then he began to wander restlessly up and down, making nervous pecks at imaginary titbits, but in reality watching me out of the corner of his eye the whole time. He often stopped to ruffle up his plumage, showing plainly how annoyed and agitated he was. Suddenly two or three common gulls swooped down upon the eel and began to peck at it. This was just too much for the black-back, and he flapped hurriedly to the eel, scattering the lesser gulls right and left, and seizing it in his strong bill, departed again to the tide-line, where he gobbled it up in peace.

Young black-backs are clad in much the same plumage as the young herring gulls, though there is less brown in it and more grey. The bill is black and the irides brown. The cry of the immature bird is not so deep as that of the mature one, and is more metallic. In many parts of the coast the birds are called " grey gulls," and such is the appearance they present. They look much longer on the leg than young herring gulls, and more shapely.

Of the other two British species of gulls, the lesser

black-back and the kittiwake, I am not entitled to speak, since I have never yet had the pleasure of their acquaintance.

Thus I have sketched briefly the chief characteristics of the four commoner gulls to be met with along our coasts. They are fine birds, and one soon becomes greatly attached to them after spending a few hours in their company.

CHAPTER XI

NOTES IN RICHMOND PARK

OF the several parks that I have seen, there is no doubt that Richmond Park is one of the most beautiful and interesting. Its rustic charm is the more wonderful, when one takes into consideration how extraordinarily near it is to the Metropolis. Like the sight of water to the weary traveller in the desert, so must the spacious and peaceful beauty of the park seem to those who are destined to spend their lives in the bustle and hum of London. It is only when one realizes this that the value and magnificence of such a place can be fully appreciated. In every one of us there is surely an insatiable longing for Nature. There are those, unfortunately, who cannot afford to spend their holiday in the country or by the sea, and it is they, and they alone, that can realize to the fullest extent the meaning of having this wonderful place literally at their doorstep.

To the lover of wild life, there are few spots that offer such rich and varied material for study. The great advantage in this respect that the park offers is that the birds being accustomed to harmless people, the animals show a surprising boldness and lack of fear. Perhaps the most striking example of this is the carrion crow—that persecuted outlaw of the country. There, except in the wilder and more

inaccessible regions, one rarely encounters more than two or three crows at a time, and then they are cunning and shy to a degree in keeping themselves just out of gunshot. In fact, in the southern counties, the carrion crow, though not rare, is certainly not common. He is a bird that has a very strong character, and is decidedly worth while watching when at close quarters, and therefore I have always taken a keen interest in him. Here, however, at the very gate of London itself, carrion crows exist in greater numbers than I have ever seen before. Here, also, they become quite gregarious, foraging in small flocks of five and six and more.

Owing, I suppose, to the prevalence of oak-trees in the park, that gay chatterer, the jay, is very abundant. Much of his shy and unapproachable nature is lost here, and I have without difficulty come within a few yards of jays in the park; a very hard thing to achieve in the country.

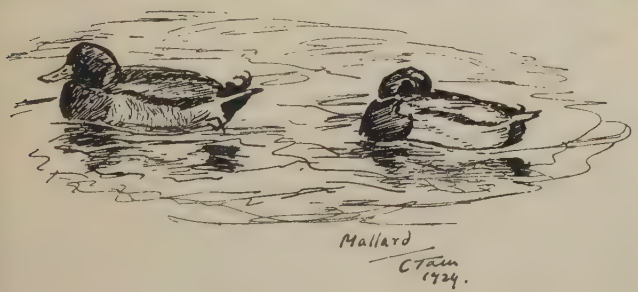
Green woodpeckers and the pied species are well represented, especially the former.

Down by the lake, however, I received my greatest and pleasantest surprise; for as I was sitting there one day watching the mallard gambolling and flirting on the ice, a brilliant flash of blue attracted my attention, and there on a twig before my eyes perched a lovely little kingfisher; not only did it perch there, but it evinced not the slightest fear when I moved, but steadily and calmly regarded me out of its very bright eyes, swaying lightly on its twig in the wind. It was quite beyond my wildest dreams to see a kingfisher so tame as that.

On the frozen surface of the lake, for it was during a cold snap in November, stood groups of green-headed

mallard and painted widgeon, whilst a few black-headed gulls circled, swooped, and screamed overhead. The mallard, in his full winter plumage, is one of the handsomest and most picturesque of birds. Not the least beautiful features are his orange legs, when set off against the frost-covered ice. A heron sailed leisurely overhead on broad wings, and the guttural croaking of the coots resounded on all sides.

Here a little troop of fallow-deer came wandering down by the water's edge, nibbling daintily at the rough yellow grass and red bracken as they did so. A graceful little spotted doe led the group, with pure



white legs and soft brown eyes. There were two other does, darker in colouring, and a couple of tiny fawns who persistently uttered their quaint little bleating cries: "Mee-at—mee-at—mee-at."

A young buck brought up the rear of the procession with slender horns possessing two tiny snags at the top of each. As they winded my presence, they became all apprehension, large ears poked forwards, enquiring frightened eyes wide open, and little black nostrils dilated. I remained motionless, and presently they advanced in a shy uncertain manner, watching me intently. Presently the little buck stepped out in

front of the others, and gazed at me in a steady, searching way. His gentle dark eyes seemed to pierce right through me, as if he were able to read what was passing in my mind. Then he stamped with one slender fore-foot and wheeled to face the others, as if in doubt of the next move. Apparently they were reassured by that time, for they subsequently began to feed again, having accepted me as a harmless being.

There is something very pleasant about the company of unalarmed wild animals and birds; at least, that is how it struck me, as I sat there with the deer unconcernedly grazing all around me, and the ducks quacking merrily on the lake.

Amongst the tangled stretches of russet bracken lay a small herd of red deer, and it was astonishing how cleverly their ruddy coats blended with the surrounding cover. In fact, with the exception of a fine stag that was browsing on the herbage, it was only the chance flick of an ear that drew my attention to four hinds and a brocket lying half-covered by the bracken.

In Richmond Park there are some splendid "royal" stags with heavy antlers. One day I came up to within a few yards of one of these noble beasts as he lay quietly dozing in the bracken with a small company of hinds and yearlings around. I had just finished sketching him, when he rose lazily to his feet, and after a preliminary yawn, stared at me in a somewhat defiant way, before uttering a short but expressive grunt in my direction. I thus deemed it best to retreat without further annoying His Lordship, who was doubtless still rather jealous and nervous about his wives after the rutting season.

Some of the most interesting things in Richmond Park are the bird sanctuaries. It is pleasant to think that those fenced-off areas of gorgeous woodland belonged expressly to the wild birds, and through which no human foot could pass during the winter months. There was a kind of hush that hung over them imposing and very peaceful. One felt quite out of place there, as if the birds plainly considered it a privilege for the bad to peer through the railings at their lovely kingdom, and an insult to enter. Everything seemed to be so peaceful and orderly there that it was more like a cathedral than a wood. From the forested depths within sounded a few

subdued avian notes, but all was solemnly silent on the outskirts. A small ox-eye tit flew in overhead with a business-like air of ownership and importance. I suddenly felt like a visitor to the stately grounds of some famous country residence, when he encounters the owner at some unexpected turn. The tit clearly disdained to notice human beings, once inside the sanctuary.

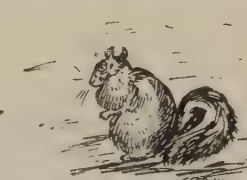
The birds certainly couldn't wish for a finer heritage than they possess here.

Not far from the Richmond gate I noticed several little fat grey squirrels scampering about beneath

the trees. They are pretty to watch as they leap over the grass, the feathery tail being jerked at every movement, so as to impart a quaint clockwork motion to their agile movements.

But one can never watch these well-conditioned little beasts without remembering that in reality they are greedy and quarrelsome invaders that are gradually ousting our own pretty little native red squirrels from their woodland strongholds.

Apparently these grey squirrels do not hibernate as strictly as the red squirrels, since they were



grey squirrel

scampering about here in a lively manner, while the hoar frost lay in sparkling sheets upon grass and fern.

It is impossible to do justice to the extreme beauty of the frost-covered park. One stepped, as it were, from the ordinary world into a gorgeous glittering fairyland. The most fascinating objects then were the spiders' webs, the effect of whose sparkling, frost-coated tracery literally took the breath away. I had no idea how many spiders' webs there were in the world until they were all conspicuously shown up by the frost. The trunks of the trees were quite covered with them.

One morning, as I took my usual walk through the Park, I happened to pass by a spot where a herd of fallow-deer were receiving their winter rations

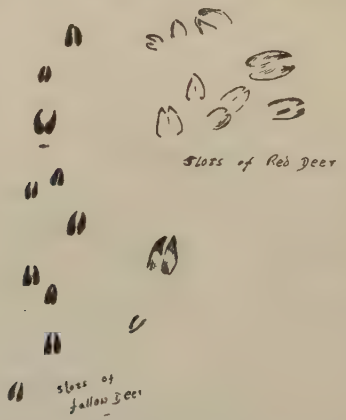
of hay and maize, and I stopped to watch, for it was, indeed, a wondrous sight. Hither the deer came trooping from all directions, until there was one huge herd of bucks, does, and fawns. A man was doling out hay to them from a waggon, and as he drove along slowly, tossing out the hay at various distances, he was closely pursued by a crowd of anxious bucks each striving to snatch the hay from the other or from the waggon itself. The fawns and does were continually uttering their quaint little bleating cries,

Fallow-Bucks in Richmond Park

and the bucks furiously drove each other about in the effort to obtain as much food as possible. Some of these larger bucks, I perceived, carried only odd antlers, so either they must have begun to shed them early, or else they had been broken in courtship battles. These bucks were very greedy over their hay, and really spent a great deal more time in chasing one another about with war-like grunts and snorts than in actually eating. Occasionally two of them would join battle with a heavy crash of antlers, which inevitably ended in the swift flight

of the conquered, pursued, for a short way, by the victor.

The fallow-buck certainly has no chivalrous inclinations towards his women-folk, for he roughly chases them away from any tempting morsel that catches his eye. I noticed one rather interesting though selfish trick that the fallow-buck also indulges in. The fawns lie down in groups after having eaten their fill, though some lie singly. I repeatedly noticed a fallow-buck who had evidently eaten and chased



his rivals about to his heart's content, look about until he espied one of these innocents, or in some cases a whole group of them, lying snugly in a warm tuft of long yellow grass and bracken. Whereupon the selfish old fellow would walk up to the fawn and, with a curt shake of the head, order the poor little creature to leave its cosy bed. As soon as the fawn had left, the buck lazily lay down in the place which was warmed by the fawn's body !

One day I saw a solitary red stag feeding amongst

the fallow-deer on their hay diet. Presently two hinds passed by, and the stag, after watching them intently, began making amorous overtures to them. But the hinds seemed to hold him in great contempt, and passed by, with their noses held high in the air. After watching them regretfully awhile, the stag returned to his feeding. It was amusing to see the contemptuous way in which he regarded the fallow-deer, and how respectfully they hastened out of his way. If any buck or doe happened to be feeding in his path, he just slightly shook his head at them, and they immediately trotted away. I am sorry to say that he deliberately went so far as to turn a whole group of tiny fawns out of their resting-place, and commenced to browse off their snug bed.

CHAPTER XII

THE KESTREL

THAT "bonny little red hawk," the kestrel, is the commonest and most well-known of the British Falconidæ. Strictly speaking, the kestrel is not a "hawk" but a "falcon." The falcons are distinguished from the hawks proper by their long, narrow wings, which in most cases reach to the tip of the tail when closed; their generally stouter and more robust appearance; and, lastly, they are distinguished by their large and beautiful dark brown eyes.

The "hawks," on the other hand, are of a slim build, with long thin legs, short blunted wings, and piercing yellow eyes. To the former class belong the peregrine and jer-falcons, merlin, hobby, and kestrel. To the latter class belong the sparrow-hawk, goshawk, and kite. The buzzard seems to form a kind of link between the falcons and the hawks.

The kestrel is happily on the increase. It was formerly shot down remorselessly, in company with other birds of prey, but farmers and gamekeepers have at last come to realize that they were exterminating one of their best friends. The kestrel, indeed, is a most efficient killer of small rodents—especially field voles. Probably there is no living creature, with the possible exceptions of the weasel and the owls, that kills so many of these little pests. The kestrel, moreover, is fond of harmful insects of

Falcon

Hawk

all kinds, though he specializes in mice. There is no doubt, of course, that an occasional bird, especially if he happens to be " hard up " for a living, will stray from the narrow path and become a staunch killer of young game and chickens. But that seems small pay in connection with the amount of good done by the species. This handsome little falcon is in many ways one of the most attractive members of his family. He has been blessed with a gift for hovering that is denied in such perfection,

I believe, to any other bird under the sun. It is on account of this remarkable hovering that the kestrel is one of the easiest of birds to identify. It is certainly a most fascinating performance to watch. On the South Downs of Sussex, where I have seen kestrels more abundantly than elsewhere, I have often lain for hours on my back in the cool green grass and watched the aerial tactics of two or three of these beautiful birds as they circled overhead.

The kestrel usually soars round the spot he is watching for a short time until he catches sight of a field vole, betrayed by the very faintest of movements in the grass or stubble some two or three hundred feet below. That, in itself, is a marvellous thing, when one takes into consideration the slight displacement of a grass or two that marks the movement of one of these shy little voles. As soon as the little beast is observed, the kestrel stops circling, and hangs practically motionless in the air, with an occasional flutter of his outspread wings to maintain his balance. Meanwhile his sharp eyes are closely observing the place where the mouse was seen, until presently another faint movement occurs. The hawk then drops to about twenty feet above the spot and hovers again. Sometimes the wings are " winnowed " rapidly, and then the bird again hangs motionless, poised like a toy kite. Suddenly the vole, unconscious of the shadow of death, creeps out of the surrounding maze of grasses, perhaps in order to reach some tempting fruit or seed, and then his doom is sealed. The kestrel steadies his wings for one moment in order to take aim, as it were, and then closing them to his sides, he falls like a rocket, head

first, on to his victim. In nine cases out of ten he is successful, and a short and abrupt squeak is the death-knell of the vole, who is instantaneously killed. In the tenth case the vole may have the luck to perceive the shadow of his fate in time, and by a frantic leap into the thick grass manage to escape by the skin of his teeth. Once the vole is dead, the kestrel wastes no time, but either carries him away in his talons to his mate and nest, or else devours him then and there. If by any chance the bird misses his victim in his swoop, he wastes no time in lamenting his luck, but straightway begins to hover over some other promising locality. Even in the face of a strong wind, the kestrel usually manages to maintain his balance. When hovering the kestrel, whenever possible, points his head downward.

The colouring of the "windhover," as he is well-named, is very beautiful, especially when the sunlight gleams on his warm ruddy back as he sweeps round in front of you. The sexes can easily be distinguished, provided the birds are at fairly close quarters, for the female, as among all birds of prey, is a much larger and bolder bird than her mate, and she has a broadly barred tail. Her back, also, is barred, and not spotted, with black. The male has a handsome slate-grey head and tail, the latter being broadly tipped with black with a white rim. His back is of a warmer red-brown tint than that of his mate, and it is spotted with black. For some unknown reason one seems to see far more female than male kestrels.

The ordinary flight of the kestrel is swift. The pointed and neatly curved wings are flapped quickly. The long tail, when the bird is hovering, is spread

into a splendid fan. Although kestrels may often be seen playfully chasing one another about and performing wonderful wing-feats, their flight completely lacks the reckless speed of the peregrine and hobby. It is by preference a silent bird, but under the stress of excitement, or when its nest is being attacked, the kestrel will fly round and round, crying out in a quick ringing "Kee-kee-kee."

In spite of his usually harmless attitude towards feathered folk in general, the kestrel is sometimes mercilessly mobbed by other birds. Finches and warblers will chase him fiercely, scolding harshly on all sides. The victim of their wrath, however, merely flys up above them, and scorns to notice their taunts. Rooks occasionally drive kestrels away on sight. I have seen jackdaws and kestrels apparently playing together. The most interesting case that I saw of a kestrel being mobbed, however, took place one day whilst I was returning from a walk at Repton.

I was watching a flock of homing pigeons flying along at their usual helter-skelter pace, when suddenly a kestrel that had been hovering over a field near by dashed out at them with a speed and apparent ferocity that reminded me of a small peregrine. The pigeons at first scattered in evident alarm, but presently they "bunched" again and charged the hawk *en masse*. This time the bold little falcon immediately turned tail and fled over the river to another meadow, where he began hovering again. I have often seen a carrion crow and a kestrel circling round and round, and now and again making swoops at one another. But this always seems to have been done in a playful spirit.

The kestrel is doubtless of a very happy disposition.

The nest is usually built either in some tall tree or on the ledge of a cliff. In many cases the kestrels appropriate the deserted nest of some carrion crow, pigeon, or sparrow-hawk. The four or five eggs are of a beautiful reddish-brown colour.

CHAPTER XIII

SOME EXTRACTS FROM MY NOTE-BOOK

THIS chapter consists of a brief summary of my observations of gulls and waders on the flats. These extracts have been taken straight from my diary.

January 14*th* (1923).—This morning the weather was quite fine, though cold, and it had rained heavily in the night. The long, dank grass that clothes the dyke-fields behind the flats was soaking with moisture.

In a hawthorn bush I noticed some small birds which ultimately proved to be reed-buntings. Later on I also noticed some rock-pipits, distinguished from the tree and meadow pipits by their greyer colouring. Along some rails on a landing-stage, opposite the sea-wall, perched a number of gulls; whilst others were drifting aimlessly on outspread wings up and down the river. There were all sorts there—common, herring, black-headed, and many greater black-backs. The smaller species consorted quite fearlessly with the big gulls.

On the mud-flats were flocks of redshanks and ringed plover.

January 15*th*.—This morning the weather was cold and frosty, and the sky presented that dull, leaden hue that foretells bad weather. On the flats

I had an interesting and successful morning. The dyke-fields behind the wall are full of long rank grass, coarse reeds, and other marshy vegetation. Through this long narrow ditches intersect at various angles, and these, at low tide, are full of clay-like mud and confervæ of various kinds. As I cautiously peered over the grassy top of the " wall " a most interesting sight awaited me. At a distance of a few feet at the most, standing about in groups on the mud flats, were black-headed and other gulls and numerous little wading folk.

The more one knows the waders, the more one learns to love their varied little piping cries. Here the sweet notes of ringed plover, dunlin, and redshank echoed all around. At first I was unable to find out where these notes came from, but at last I observed slight movements amongst the marine herbage, and there I discovered the owners of the voices. It is extraordinary how easily these tiny waders conceal themselves. In fact, they might almost possess caps of invisibility. Amongst the ringed plover, I soon perceived the dainty little dunlins. These were in their grey winter plumage, with white underparts. They ran hurriedly hither and thither, poking their long bills incessantly into the mud in search of minute crustaceans, worms, and molluscs. The larger, but more graceful, redshanks ran about freely, or else stood still, jerking their bodies up and down nervously upon their orange legs. I had never seen redshanks at such close quarters as they were this morning.

I was able to watch the gulls at my leisure. The coral-red legs of the black-heads showed up conspicuously against the herbage. It would be quite im-

possible to describe the extraordinary medley of sounds that issued from a mixed flock of common and black-headed gulls. The former were the quieter of the two species. One common gull particularly attracted my attention by behaving exactly as though he had got the "gapes" of the poultry. He incessantly continued to stretch out his neck, which appeared to be swollen, and to open his bill widely.

I think that he must have got something stuck in his throat.

There were many herring gulls around. Several were in the brown immature plumage. The full-grown bird is exceedingly handsome with his spotless white head and breast and pearl-grey mantle.

Many "grey gulls," as the young greater black-backs are called, were wheeling round overhead and uttering their harsh cries.

While I was lying thus in the nodding grass of the wall, there came a low piping note, and presently a gorgeous streak of azure blue and green shot over my head into some reed-beds behind. It was the first kingfisher that I had seen on the flats.

January 17*th*.—This morning I spent some time in making sketches of the various kinds of gulls. I also was able to watch the greater black-backed gull at fairly close quarters.

It was delightful lying there in the warm sunshine, with the quiet lapping of the water and the faint noise made by the breeze amongst the reeds and tufts of flag.

Occasionally a loud swish-sh-sh ! would be heard, as a flock of starlings came rushing along, turning, bending, and twisting in their flight.

A rustle in the grass ahead and a few cheeping notes directed my attention to a reed-bunting casually pecking at some grass seeds. A rock pipit flew down to the river bank and trotted about lark-like, pecking at the mud. There came a sudden rush of wings as two redshanks flew up the river, orange legs stretched out behind, and white secondaries flashing. As they flew, they piped out the beautiful mellow " Tuke ! Tuke ! Tu-hu—tu-hu," so characteristic a sound of the flats !

Whilst I was lying there thus, I happened to notice some of the gulls that were flying around. It struck me rather forcibly then how beautiful a gull's flight is ! I think that it is the most pleasing of all bird-flight. There is something so delightfully free and expressive of the joy of living in the leisurely way in which the gull floats downwind. More especially is this set off when the birds are gracefully " topping " the curling crests of the waves. Observe this gull as he floats past overhead ! His narrow wings are spread to their furthest, and he merely seems to rest upon them, and to let himself go wherever the cool breeze cares to take him. Yet a glance at the tail

will prove that this is not the case. The tail acts as a perfect rudder, and one may watch the bird control his every movement in the air by the slight adjustment of his tail. As he soars past, he tilts his body slightly from side to side—and it is this that produces that wonderful happy-go-lucky air to his flight. Presently he rises or descends with a few powerful strokes of the wings, and then he sails along again. It will be noticed here that the gull does not flap his wings merely up and down, as one is apt to think,

but rather backwards and forwards, thus pushing himself along.

What a contrast to the gull's flight are these three homing pigeons that come recklessly dashing along! Sportively they chase each other; now swooping, now rising, turning to the right or left, and, in fact, all over the place. What a picture of living joy and happiness they are also! But they completely fall short of the lazy, placid, peaceful, gliding motions of the gull.

January 19th.—This morning there was a dense fog, and the atmosphere was damp and excessively cold. When I arrived at the flats there were no birds on the saltings as yet. The flats and dykelands were bleak and forbidding in the extreme. A heavy mist hung over mead and marsh. Up in the sky the sun gave forth a shimmering ghostly silver-coloured light which just peeped through the dense grey fog. The damp lay heavy on rush and flag. The thistle-heads drooped mournfully, and the dried umbelliferous plants which abound on the wall were brown and withered. The long straight grass that clothes the dykes and lower slopes of the wall was of a dead yellow hue. Even the thrift and blue-grey sea-blite on the saltings looked lifeless. Ever and anon at my feet there would be a scurry and a rush of wings, as some small finch or bunting hastily fled out of its snug hiding-place in the dank grass. Here, too, would be seen a flicker of white, as two or three of those exquisite and rare little birds—the snow-buntings—were flushed from the cover of the grass. During the winter months these snow-buntings fly south from their Scottish breeding haunts, to favour us Southerners with a short visit. They are the loveliest of the bunting tribe, in their dainty dress of brown and white. Of course, this is the winter plumage. In summer they are handsomely clothed in white and black. They are usually to be met with on the sand-dunes near the beach, and here they may be seen often flitting about now on the sand, now on the shingle, and now practically invisible amongst the heap of brown, green, and red seaweed. As a rule, they are of a strangely tame disposition, and allow quite a near approach. I observed the following

points on a bird that I saw at closer quarters than the rest. The head and neck were greyish-buff fading into white. The crown and cheeks were brown. The breast, underparts, and rump were pure white. There was also a broad white patch upon the dark wings. The bill was bright yellow, and the irides dark brown. Snow buntings are most engaging little birds.

From the river came the subdued cackle of gulls, amongst which I recognized a few of the hoarser notes of the black-backs. I bent my now soaking steps in that direction.

There was the usual selection of gulls upon the landing-stage, while many others were ducking about in the river or else squabbling loudly with one another on the mud. The herring gulls, for some unknown reason, were wildly excited this morning, and kept up a series of screaming competitions. While I was watching them I heard a loud flapping of wings and a black-back hove in sight and pitched grandly upon a post, where he folded his wings and gazed around with a ferocious air well capable of striking terror into the hearts of the small fry.

Soon the squabbling of gulls and piping of waders on the saltings warned me that the birds had returned at last, and I wended my way towards them. As I mounted the wall, I caught a glimpse of gulls in thousands, and heard the piping trills of many waders. But, alas ! a passing black-back caught sight of me, and barked out a sullen alarm note. With a mighty rush of wings, flock upon flock of gulls arose. All sorts were there, and amongst them flocks of ringed plover, dunlin, sanderling, and redshank, and a few

curlews turned and twisted and zigzagged. Three yelping redshanks flew over my head into the meadows behind. In a few minutes the noise died down, and the saltings were once more deserted; while high up in the air the gulls circled and screamed and wailed in vexation. No less disappointed was I, for I knew that in all probability they would not return to the flats again, and this proved correct.

January 20th.—This morning the flats presented a very different appearance from yesterday. The sun was "out," and bathing land and water in its warm glow. The long tussocky grass waved and nodded with a soft "swish," while the water lapped roughly against the wall, sending little whirlpools of foam into the whirling eddies. It was a fine sight watching the effect of the wind on the dyke grass. Smooth ripples swept across, like the waves of the sea. On my way to the saltings, I passed some of the green slime-filled pools, and noticed that the green algæ bore the tracery of the tiny fairy feet of the waders.

In many of the ditches and narrow channels on the flats were numbers of shore-crabs of all sizes, and most amusing to watch they were! The crab is of a decidedly pugnacious disposition, and so fights were of constant occurrence. They would sidle up to one another and seize each other's claws, and thus commence a kind of wrestling match. Usually the victor proceeded to eat his vanquished opponent! They are very alert creatures, and seemed to catch sight of me the moment I appeared, and then they would proceed to slowly but surely shuffle themselves into the mud, until only a pair of staring eyes upon stalks and "twittering" feelers appeared. Some-

times they would covertly sidle back under cover of the bank.

If I poked my stick at them under water, they would make vicious dabs at it with their powerful claws, rolling their eyes furiously, and actually bubbling with rage and alarm. The larger members of society are, I am afraid, decided cannibals, as the empty shells or "carapaces" of many smaller crabs will testify. Once I heard a peculiar crunching sound proceeding from a dense tuft of marine herbage overhanging one of these ditches. On investigating, I discovered that the cause of the noise was a fairly large shore-crab who was tightly embracing the remains, almost crushed out of recognition, of a smaller relative. With one broad claw he gripped the wretched victim, who still managed to twiddle one leg, while with the other he wrenched off pieces and carried them to his eagerly grinding jaws in a curiously human fashion. It was clearly a case of "Alas! my poor brother!" I pitched both the old cannibal and his meal into the water, where he dropped his victim and hastily scuttled away.

The darting shadowy forms of shrimps may also be seen in these channels in the mud-flats. The gulls take heavy toll of the crabs, as may be seen by the innumerable dried "husks" lying about.

When I reached the sea-wall overlooking the saltings, I found quite a large number of gulls on the water. By degrees more came flying in from the sea, until they resembled a huge snow-storm. Like snow, too, the saltings became white by degrees as the gulls settled, the air resounding with their excited cries. I had to remain as still as possible, as there were several sentinels flying around. Suddenly I happened

to turn round, and saw, to my dismay, a huge bank of cloud coming up behind at a threatening pace. Almost immediately heavy drops began to fall, and I dashed for my bicycle and had a hard race through the blinding rain for home, with the smothered voices of the sea-birds still ringing in my ears.

CHAPTER XIV

THE GRASSHOPPER'S LOVE, AND OTHER NOTES

ONE pleasant summer's day, as I was wandering through the shaded outskirts of a large wood in Sussex, my attention was drawn to the incessant chirping and fiddling of many grasshoppers. The grasshoppers' orchestra is one of those outstanding harmonies of Nature that inevitably brings back the memory of joyous summer days. The liquid and mellow carols of the bird-folk have continually earned well-merited praise, but how seldom does the merry orchestra of the numerous little grasshoppers receive its share of notice and appreciation? And yet I think that if all the grasshoppers were suddenly to become fashionable and "go on strike," many lovers of Nature and country walks would miss their quaint music. It is so essentially a part of the summer revels of the fields.

The grasshopper produces this sound by scraping the thighs of his long hind-legs against his wing-cases. For this purpose the thighs are covered with a "herring-bone" pattern of rib-like projections. The fiddling is employed as a means of communication, I suppose, but chiefly as an overture for the bashful ear of the female grasshopper.

As I suddenly became aware of these busy sounds all around in the thick grass clothing a sunny bank,

I thought that I should like to watch these industrious little minstrels more closely. Accordingly I lay down upon the bank and awaited events. At first alarmed by my presence, the grasshoppers discreetly stopped fiddling, and there was sudden silence, broken only by the occasional "flicks" in the grass as some of the more nervous individuals departed by lengthy bounds to safer localities. Soon, however, my presence was apparently forgotten, for a few inches away there sounded a faint "Sizzy-sizzy-sizzy," which gradually increased in volume. Presently I discerned the musician clinging to a grass-stem. It was not long before I also espied the female twiddling her feelers. A very formidable female she was, too, for she was nearly twice the size of her lover, and it seemed almost impertinent for the little fellow to dare to make love to her!

However, my little friend apparently failed to consider this side of the question at all, and no doubt thought himself very impressive indeed. He certainly was more handsomely dressed than the female, as his greyish body ended in a lurid orange tail. He sat there, hugging his grass-blade to his bosom, and regarding the object of his affections fixedly through his big expressionless and dully staring eyes. Then, slowly at first, he began to rub his long hind-legs against the wing-cases, producing a faint "Zitz-zitz-zitz." As he became more excited, evidently considering that he was getting on splendidly, he increased the speed of friction, and then, quite overcome with passion, he vibrated the wing-cases at the same time that he stridulated with his legs, thus producing the "Sizzy-sizzy-sizzy."

I looked to see how this elaborate and entertaining

performance affected the lady grasshopper. She sat facing the opposite direction with a fixed and stupid stare. At length she deliberately began to crawl away, without so much as a glance in his direction. Up another blade she crawled, leaving the male in a state of the greatest discomfiture, and forthwith began unconcernedly to take large bites out of the blade. Her sharp little jaws cut beautifully neat slices—the shape of a piece of melon—from the blade, and she thus gnawed her way through until the top of the blade was completely severed. Then she stopped to munch up the titbit with evident pleasure, and having finished her meal, coyly sidled away amongst the grass-stems.

But what did our poor friend do? Did he meekly run off to see whom else he could enslave with his music? No! he had no intention of being outwitted like that. So he scrambled after the callous one, but she stopped when she realized that she was still being followed, and pretended to be greatly interested in another glass-blade. The male, as soon as he saw this, became greatly excited, and began to fiddle away again in a low tone to encourage her. Then he began to creep and crawl, and go through all sorts of out-of-the-way places, in a patient endeavour to steal upon her unawares; terribly anxious, in the meantime, lest she would run away again.

The female allowed him to approach so near that he could all but touch her with his antennæ, and then she took an enormous leap of a good two or three feet, and scrambled down into the undergrowth.

The male promptly and seriously set to work to follow again, stopping awhile now and again to fiddle away his overtures. And here he became lost in an

intricate maze of undergrowth, and so I never saw the end of this amusing drama.

Once I was the witness of a scene in which two little males were both enamoured of the same colossal female. First of all (they seemed to be working mutually, by the way) they both spent many weary efforts in fruitlessly chasing her from stem to stem. Invariably the same thing happened—the female would wait until they had just reached her and then she took the usual leap out of their ken.

After a while they seemed to bring a little strategy into the game, for one of them continued to chase the female, while the other crept round by a long devious route, apparently with the object of ambushing her. Unfortunately, the wily one took such a long hop that she landed considerably beyond her would-be ambusher. Both males scuttled in an undignified way after her then, but, as far as I could see, they never succeeded in overtaking her. What astonished me was the friendly way in which both males seemed to co-operate, when one would have thought that they would necessarily have been rivals.

* * * * *

I think that the more one studies the habits of ants, the more astonished one becomes at the extreme ingenuity and intelligence that they possess in common with the bees and wasps and other members of the Hymenoptera. But I think that the ants surpass even the marvellous honey-bee in intelligence and " civilization," for these creatures might almost be considered as civilized.

It is, of course, a well-known fact that ants actually possess " cows " from which they obtain " milk."

These ant-cows are the detested garden pests—the aphides or green flies. Sometimes, when casually noticing these aphides, one will see a few ants running up the stem of the rose, or whatever plant is sheltering their cattle, when, reaching them, the ants deliberately begin to stroke the end of the aphides' abdomens with their antennæ. A magnifying glass will here aid one to notice that a small drop of sugary liquid is exuded by the aphis, as it receives the gentle embrace of the ant's antennæ. This liquid is called "honey dew," and is considered a great delicacy by the ants.

Quite a short time ago, however, I happened to be staying at a country house, in the garden of which were many nests of several species. I often used to spend a long time in watching the energetic little workers busily employed in gathering some crumbs dropped in the vicinity of the nest. Even then I was astonished how "human" they were.

As soon as an ant found a crumb that was too large for herself to carry, another would come running along, and after an introductory stroking of feelers on the part of both, they would assist one another with the morsel back to the nest—like two men carrying a grand piano!

One day it occurred to me that it would be interesting to see how the black ants would welcome a few "reds" into their nest. Accordingly I introduced about forty or fifty of the red ants, and awaited events. I had not to wait long. No sooner was the first foreign ant on "forbidden ground" than immediately the dusky warriors came fiercely scrambling out of their nest. They rushed straight at the invaders, who were not a wit less eager for the fray, and then began a most interesting and exciting scene.

Two opposing ants would rush at each other and "clinch," and then they would roll over and over together fighting for all they were worth. As soon as one ant had killed or disabled his opponent, he turned round at once in search of the next, and so on. The larger winged ants also joined in the fray, and there often occurred the spectacle of one of these large winged ants making a vain effort to escape, with two or three of the smaller wingless workers hanging on to its legs, wings, and body. One of the most interesting things that I noticed was the sight of a pair of ants helping a wounded comrade back to the nest. This was done in a pathetically human way.

Later I reversed the proceedings, placing black ants into the "red" nest, and this met with precisely the same result. The red ants were by far the gamer and stronger of the two species. One red ant was quite equal to two black ones. In all cases the wounded ants were helped back to the nest by their comrades.

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